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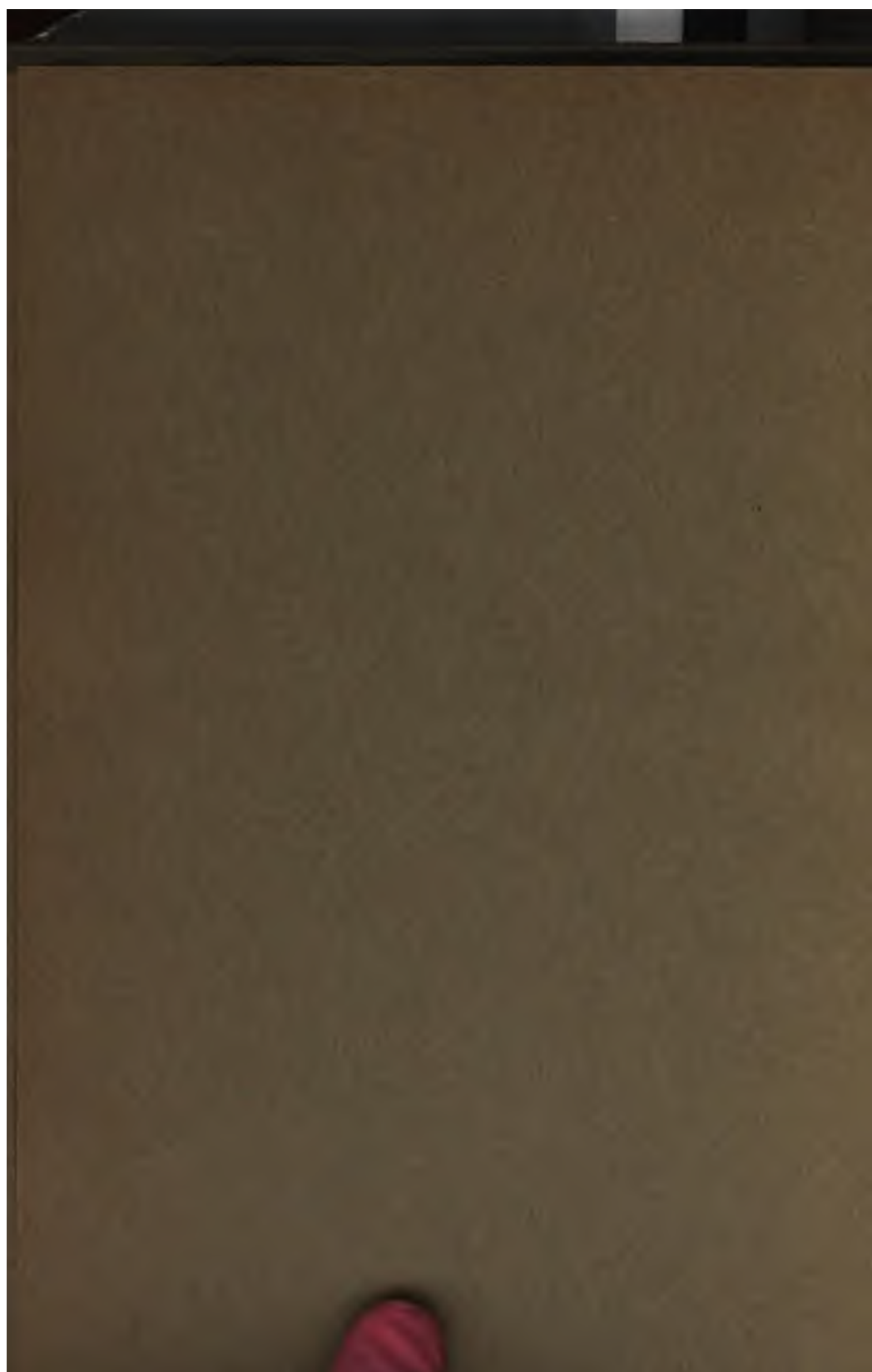
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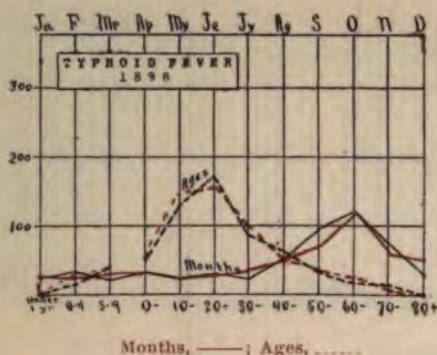
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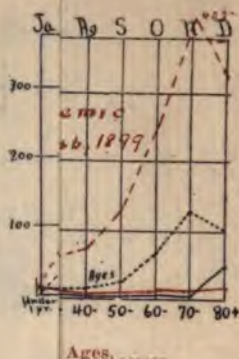
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DIAGRAM I.—COMPARISON OF THE DEATHS RETURNED PERIODS OF AGE OF DECEDENTS, AS FOLLOWS:—(1) TYPHOID FEVER; (7) CONGESTION AND HEMORRHAGE OF THE BRAIN (APOPLEXY); (8) ACCIDENTS.

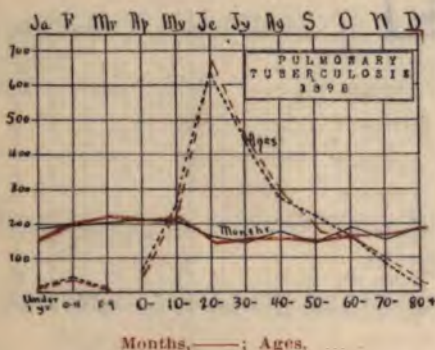
(1) Typhoid Fever, 1899.



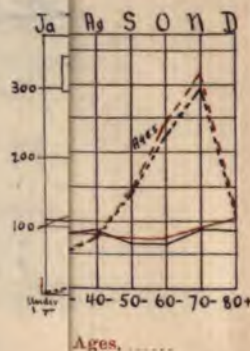
(7) Congestion and Hemorrhage of the Brain (Apoplexy), 1899.



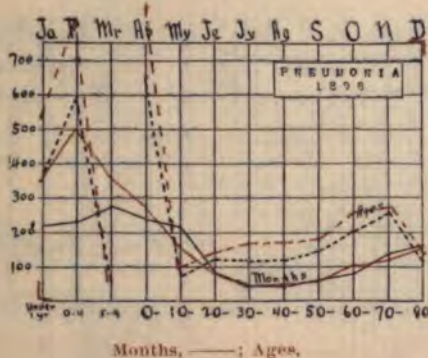
(5) Pulmonary Tuberculosis, 1899.



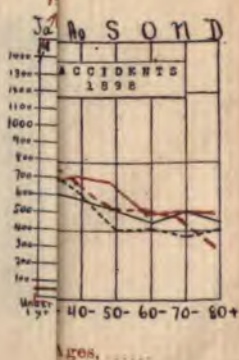
(8) Accidents, 1899.



(9) Pneumonia, 1899.



(8) Accidents, 1899.



THIRTY-THIRD ANNUAL REPORT
—
OF THE
★ SECRETARY OF STATE
ON THE
REGISTRATION
OF
BIRTHS AND DEATHS
MARRIAGES AND DIVORCES
IN
MICHIGAN
FOR THE YEAR 1899
—

— — —
FRED M. WARNER

SECRETARY OF STATE

— — —
EDITED BY

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STATISTICAL ASSOCIATION, ETC. SPECIAL LECTURER IN VITAL STATISTICS, DEPARTMENT
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BY AUTHORITY

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PUBLICATIONS OF THE DEPARTMENT OF STATE ON VITAL STATISTICS.

ANNUAL REGISTRATION REPORTS OF MICHIGAN (VITAL STATISTICS).

The First Annual Registration Report was for the year April 5, 1867, to April 5, 1868; the Second Report was for the fractional year April 5, 1868, to December 31, 1868; subsequent Reports, from the Third (1869) to the Thirty-third (1899), are for calendar years.

The Old Series of Reports, which includes statistics of deaths under the old and grossly imperfect law of 1867, according to which they were enumerated by supervisors and assessors in the same way that births are enumerated at the present time, consists of thirty-one volumes, extending from 1867 to 1897, inclusive.

The New Series of Reports, which includes reliable statistics of deaths as returned by local registrars under the law of 1897 requiring immediate registration and the use of burial permits, begins with the year 1898. It contains the first accurate statistics of mortality in Michigan.

THE MICHIGAN MONTHLY BULLETIN OF VITAL STATISTICS.

EDITED BY CRESSY L. WILBUR, M. D.

Vol. I.—September, 1897, to December, 1898.

Vol. II.—January to December, 1899.

Vol. III.—January to December, 1900.

Vol. IV.—January to December, 1901.

Vol. V.—Current Volume, 1902.

THE BULLETIN OF VITAL STATISTICS is mailed each month to all registrars in the State, and to such others as may request it. Registrars will confer a favor by ascertaining whether their local health officers, physicians, undertakers, and others interested have seen the publication, and, if they desire it, by sending in their names on a special slip with the monthly report. It aims to assist in every way possible in the thorough execution of the law and to make practical use of the results obtained for the benefit of the people of the State.

REGISTRAR'S CALENDAR AND MANUAL OF INSTRUCTIONS.

LETTER OF TRANSMITTAL.

STATE DEPARTMENT,

Lansing, Michigan, April 15, 1902.

TO HIS EXCELLENCY, AARON T. BLISS, Governor:

SIR—I hereby transmit the Thirty-third Annual Registration Report of **Michigan**, containing statistics of births and deaths, marriages and **divorces** in this State during the year 1899, as required by law.

Respectfully,

FRED M. WARNER,

Secretary of State.



INTRODUCTORY REMARKS.

This is the second Annual Registration Report issued under the new law for the registration of deaths, although the Thirty-third Annual Report from the first publication of vital statistics in Michigan, and is especially satisfactory as indicating the greatly increased efficiency of the registration of mortality statistics under the law requiring certificates of death and burial permits as compared with the extremely imperfect data collected under the old law. It is to be hoped that the registration of births will soon be improved in a corresponding manner, when Michigan will at last have a fairly efficient and complete registration of all of the several classes of vital statistics, namely, births, deaths, marriages and divorces.

MICHIGAN A REGISTRATION STATE.

For the first time in the history of the registration service of this State the mortality statistics collected under the State law have been accepted by the United States Census as fairly complete, thus admitting Michigan to the rank of a "registration State." There are only eight other States so classed, for the time of the Census year 1899-1900, namely, Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York and New Jersey, although the new registration law of Indiana, which agrees closely in its principles and practical operation with that of Michigan, will probably entitle that State to be so classed for the calendar year 1900. Michigan has thus the proud distinction of being the first Western State to put a reliable system of registering deaths into effect, and this fact should be a source of great pride and gratification to all of her citizens, apart from the direct value of the results themselves to the people of the State.

It was said that the collection of mortality statistics under the new law was "fairly complete." It is regretted that it cannot be honestly claimed that the statistics are absolutely complete, as they should be, but the fact must be recognized in this connection that it is vastly more

difficult to secure the registration of *all* deaths, without any exception whatever, in Michigan than in any other of the registration States, with the possible exception of Maine. This is due to the fact that Michigan contains a large area of very sparsely settled townships,—much of it, in fact, practically a wilderness with less than five persons to the square mile,—and that the State is much less densely populated than the average of the registration States. This is shown by the following comparative table of areas and density of population taken from the U. S. Census of 1900:

Registration States, Twelfth U. S. Census, 1899-1900.	Population, 1900.	Land area in square miles.	Density of population— persons to square mile, 1900.
UNITED STATES.....	76,303,387	2,970,038	25.6
Maine.....	694,466	29,895	23.2
New Hampshire.....	411,588	9,005	45.7
Vermont.....	343,641	9,135	37.6
Massachusetts.....	2,805,946	8,040	348.9
Rhode Island.....	428,556	1,053	407.0
Connecticut.....	908,420	4,845	187.5
New York.....	7,268,894	47,620	152.6
New Jersey.....	1,883,669	7,825	250.3
Michigan.....	2,420,982	57,430	42.2
Average of nine registration States.....	1,907,285	19,394	98.3

ACCURACY OF REGISTRATION OF DEATHS IN MICHIGAN.

Even with all of the difficulties incident to registration in Michigan, the accuracy of the registration of deaths in the State compares most favorably with that of any other registration State in which the results have been tested. The United States Census did not accept the validity of our registration without first making a test of its effectiveness, and although, as will be shown later, this test was not a perfect one, its results may be given as a preliminary step towards finding out just what proportion of deaths escapes proper registration. Articles on this subject were published in the MICHIGAN MONTHLY BULLETIN OF VITAL STATISTICS for August and October, 1901, with a note in the issue for January, 1902, and work is at present proceeding by which it will probably be possible to present a more detailed statement in the next Annual Report for the year 1900, to which the statistics in part relate.

The method of procedure by the Census authorities in verification of the accuracy of registration in this State was by instituting a comparison between the results afforded by the State registration law and independent returns, obtained by a separate enumeration, from the Census enumerators in the same manner that all Census statistics of mortality

for Michigan and other nonregistration States have been solely derived. The registration returns to this Department for the Census year 1899-1900 comprised 32,381 deaths. The enumerators' returns to the Census Office for the same time comprised only 23,613 deaths, thus incidentally showing the gross inaccuracy of the enumeration method of collecting vital statistics. But the two sets of returns were then compared, name by name for individual districts, and it was supposed that 2,479 deaths were found in the extremely imperfect Census schedules which were not contained in the State registration record. Adding these deaths to the State record, we have a total of 34,860 deaths supposed to have actually occurred in the State, of which number the number originally returned under the State law, 32,381, constitutes 92.9 per cent. As the limit of acceptance as a registration State is 90 per cent of total deaths thus computed, it is seen that Michigan is well within the limit, but that, apparently, there is still a considerable percentage of deaths not properly registered.

These results are shown in somewhat greater detail in the following comparative table, in which it is unfortunate that all of the other registration States cannot be included:

Registration areas.	Registration record.	Added from enumerators' returns.	Total.	Per cent of registration record to total.
MICHIGAN.....	32,381	2,479	34,860	92.9
Registration counties.....	26,596	1,743	28,339	93.8
Urban.....	10,980	695	11,675	94.0
Rural.....	15,616	1,048	16,664	93.7
Counties with one or more nonregistration townships.....	5,785	736	6,521	88.7
Urban*.....	1,680	107	1,787	94.0
Rural.....	4,105	629	4,734	86.7
OTHER STATES:				
Connecticut.....				?
Delaware.....				79.4
District of Columbia (Washington city).....				97.7
Indiana (eight months only).....				89.3
Maine.....				89.2
Maryland.....				78.7
Massachusetts.....				?
Minnesota.....				82.6
New Hampshire.....				?
New Jersey.....				?
New Jersey, certain counties.....				88.2
New York.....				?
New York, certain counties.....				90.6
North Dakota.....				30.3
Rhode Island.....				?
Vermont.....				88.0
Wisconsin.....				77.4

* Urban includes only cities of over 8,000 population.

It is thus evident that Michigan showed a higher percentage of completeness than any other area to which a test was applied, with the single exception of the District of Columbia, which is in reality a city and not comparable with a State area. Moreover, from the examination of some of the names added by the Census, as in the case of the city of Lansing, where it was supposed that 18 names had escaped registration and where it appears that not more than one or two were actually omitted, it is extremely probable that a large proportion of the 2,479 added names will be found to have actually been upon the State record. The discrepancy appears from the fact that many of the deaths returned by the Census enumerators did not occur at the place of enumeration, where the relatives of the decedents may have since moved, but occurred and were recorded at other places. Some were in other States. One death returned by the Census enumerator from Lansing occurred in the Philippine Islands, and some were not in the Census year. As a preliminary conclusion, which will be substantiated by a careful comparison of the names added by the Census with the completely indexed registration returns of the State for the two years 1899 and 1900, it may be said that probably at least one-half of the added names will be found on record, which will raise the percentage of accuracy as figured above from 92.9 per cent to about 96.5 per cent. And exclusive of nonregistration townships, which have been brought under the general law since the time of the Census, the proportion of complete returns for the State would be still higher.

COOPERATION WITH THE UNITED STATES CENSUS.

The progress of registration work in this country has been very seriously handicapped in the past because there has been no central office that was at all competent to act as the representative of the Federal Government in the promotion and improvement of the collection of vital statistics among the States and the utilization of the results thus obtained in building up a mass of reliable information in regard to the vital statistics of the country as a whole. True the successive Censuses have made some efforts in this direction, but progress had hardly begun before the discontinuance of effort resulting from the winding up of the affairs of each decennial Census after its work in the enumeration of population was completed, again left the work of registration to fall to the ground.

It is therefore a matter of earnest congratulation that the Congress of the United States has at last passed a law for a permanent Census Office, one of whose most important duties, in the intervals between the

Decennial enumerations of population, will be to promote the proper registration of vital data and to publish the statistics drawn from those areas which attain a satisfactory standard in this respect. Already, even before the organization has been perfected, a most important Circular on the Registration of Deaths has been issued by Mr. W. A. King, Chief Statistician for Vital Statistics, with the cooperation of a Committee from the American Public Health Association, which aims to define the essentials that must be observed in framing a satisfactory registration law for deaths. Had such a statement of the demonstrated necessities of accurate registration of mortality statistics been previously available, and had it been consulted by the legislators and those who have endeavored to promote such legislation, we should have had successful registration laws in at least a dozen States whose present laws, passed in ignorance of the absolutely essential requirements of the case, have proved disgraceful failures.

GENERAL ADOPTION OF THE INTERNATIONAL CLASSIFICATION OF CAUSES
OF DEATH.

In another very important matter the U. S. Census has materially contributed to the advancement of vital statistics, and this lies in the adoption of the International Classification of causes of death, as revised by the International Commission of Revision at Paris in 1900, as the official classification of the Census for use after the compilation of the statistics of the year 1899-1900. The statistics for the calendar year 1900 will be compiled according to this system, and also for the subsequent years as authorized to be collected under the permanent Census law. The adoption of this classification by the Census was urged by the registrars of the country through resolutions passed in the Conference of State and Provincial Boards of Health of North America and in the American Public Health Association as long ago as 1898, and has been supported since by its use in all of the registration States without exception and in the most progressive American cities. The great advantages which result from the general use of a uniform classification should far outweigh any minor objections which may be brought to bear, with more or less justice, against the classification itself. Equally cogent criticisms could be made of any other classification that has ever been put into use, and merely local systems, however meritorious in the eyes of their devisers, are practically worthless for exact comparisons because they are not comparable with others. In this respect, mortality

statistics are only beginning to emerge from a condition of great uncertainty, and the method by which the International Classification endeavors to definitely fix the exact meaning of each term employed by stating its relations to the causes given in the original returns, marks the beginning of more scientific work. But even yet there is much to be done, and anyone who supposes that the International Classification is all ready for use, without additional labor on the part of American registrars, is quite likely to be disappointed. There are a great many additional terms, some of them having peculiar or local uses in various parts of the country, whose distribution must be made under the titles of the International Classification. For the most part, such distribution can be made according to the accepted principles and analogies of the system, but in some cases a general agreement will have to be reached by registration offices, which can be perfectly well done under the permanent organization for this purpose authorized by the International Commission at Paris on the day of its final session. Moreover, where the classification is wrong, either in principle or practice, it should be the duty of every registrar employing it to make a note on the excepted point, with a full statement of the difficulty or lack of scientific precision, and thus provide for the amendment of the classification at the time of the next decennial revision. This course will be far preferable, as a rule, to making changes in individual offices, which might tend to introduce confusion and a return to the former chaotic condition of uncertainty as to the inclusion of terms in the tabular list. Let us work together in thus advancing the cause of uniform statistics, with full assurance that any desirable and necessary changes that meet the approval of registration offices generally can be incorporated in the regular decennial revisions, and thus the classification be kept abreast of scientific progress during the century.

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THIRTY-THIRD ANNUAL REGISTRATION REPORT OF MICHIGAN

CONTAINING VITAL STATISTICS FOR THE YEAR 1899.

PART I.—VITAL STATISTICS AND POPULATION, 1899.

This part of the report is intended to give a general idea of the results of registration during the year 1899, and to serve as an introduction to the more detailed study of the statistics in the divisions following. This report is the second one of the new series containing accurate statistics of deaths as collected under the registration law of 1897, and is of especial interest because the returns of deaths are probably more nearly representative of normal conditions in the State than those presented for the preceding year.

A separation of the statistical tables into two classes, (1) primary and (2) secondary, has been made. By the primary tables we understand those tables which contain the crude statistical material in detail, being the most direct results of the compilation of the returns. These tables are to be found in the following sections of the report, the pages numbered with Arabic numerals, and constitute the essential part of the same. All of the data for the current year referred to in the text, or illustrated by supplementary tables contained therein, are derived from the primary tables. The primary tables have been made as few as possible, quite a number of those formerly given each year in these reports having been discontinued. Among these are the tables showing births, deaths and marriages by color. As has been pointed out for several years past, the proportions of colors other than white contained in these tables have been so small that the results were of no practical importance. Furthermore, small as were the numbers involved, the inaccuracy of statements in regard to color on the part of the reporters was so great that very little reliance could be placed upon the results.

The order of discussion formerly employed in the Michigan registration reports was (1) births, (2) marriages and (3) deaths. Without attempting to justify the logical order of arrangement (if there be one), both the statistics (primary tables) and text have been rearranged in the

following order, solely as a matter of convenience: (1) deaths; (2) marriages; (3) divorces; (4) births. Deaths are placed first because they are of the most practical importance and interest. Marriages and divorces are naturally considered together. Births are placed last because they are collected under the old, tardy and inaccurate law of 1867, and are of very little value except for certain internal comparisons.

VITAL STATISTICS RETURNED FOR 1899.

The principal facts in regard to the returns of vital statistics for the year 1899 may be seen in the following summary:

Total number of deaths, 1899.....	23,675
Deaths per 1,000 estimated population, 1899.....	13.9
Total number of marriages, 1899.....	21,877
Persons married, 1899.....	43,754
Persons married per 1,000 estimated population, 1899.....	18.0
Total number of divorces, 1899.....	2,218
Persons divorced per 1,000 estimated population, 1899.....	1.8
Total number of births, 1899.....	41,518
Births per 1,000 estimated population, 1899.....	17.2

The usual comparison of births and deaths, their difference constituting what is known as the natural increase of population, cannot be made for this year, since the improved accuracy of the returns of deaths removes them from the plane of comparison with the very imperfect returns of births. It is very doubtful if the statements of natural increase formerly made in these reports, and based on the assumption that the returns of births and deaths were approximately defective to about the same amount, were of any value whatever.

RETURNS BY MONTHS, 1899.

The distribution of the returns by months during the year 1899 may be seen in Table 1. The total number of deaths does not include the 219 deaths reported from districts remaining under the old law, since these were received after the compilation of the deaths returned under the new law. Furthermore, the distribution of deaths by months as returned under the old law is known to be incorrect, a larger proportion being returned of those which occurred during the later months of the year. This is shown in the return of births, which are still collected under the unmodified law of 1867, and which are accordingly worthless for indicating the true incidence of births during the year.

The average daily numbers of deaths, marriages and births are also given for the year and months. This average enables comparisons to be made of the rates of mortality, nuptiality and natality between the several months with as much accuracy as by the computation of rates. The imperfections of the returns of births, however, invalidate the figures in this respect. It will be noted that the month of greatest daily mortality was February and the month of least daily mortality was June. The maximum number of marriages per day was in the month of November, and the least number in March. Owing to the large number of marriages of nonresidents included in the returns of the present year most of which were performed at St. Joseph during the summer ex-
 sions of the months in regard to
 marriages correctly shown. While
 the highest number according to the

returns, it is likely that the early months of the year are too imperfectly reported to allow this statement to be accepted as reliable. As the deaths are now much more accurately registered than the births, no inferences can be drawn as to the amount of natural increase in the several months of the year.

Table 1.—Vital statistics of Michigan, by months, 1899.

	Total number registered, 1899.	Returns by months, 1899.											
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec. Unk.
DEATHS:													
Number.....	* 33,675	3,269	3,828	3,354	3,054	2,594	2,242	2,439	2,788	2,753	2,479	2,366	2,509
Daily average	92.3	105.5	136.7	108.2	101.8	83.7	74.7	78.7	89.9	91.8	80.0	78.9	80.9
MARRIAGES:													
Number.....	21,877	1,343	1,311	1,324	1,765	1,581	2,185	1,681	1,767	2,095	2,323	2,464	2,038
Daily average	59.9	43.3	46.8	42.7	58.8	51.0	72.8	54.2	57.0	69.8	74.9	82.1	65.7
BIRTHS:													
Number.....	41,818	3,099	3,134	3,681	3,652	3,494	3,199	3,633	3,785	3,758	3,454	3,262	3,636
Daily average	114.6	100.0	111.9	118.7	121.7	112.7	106.6	117.2	122.1	125.3	111.4	108.7	117.3

* Not including 219 deaths returned by supervisors under the old law. See p. 102.

COMPARISON OF 1899 WITH PREVIOUS YEARS OF REGISTRATION.

The vital statistics for the year 1899 may be compared with the returns for the preceding years of registration by means of Table 2. In this table estimated populations are presented for the intercensal and post-censal years, by whose aid the death rates, marriage rates and birth rates may be computed for each year, and thus fairly accurate comparisons be made of the data with allowance for the increase of population of the State.

According to the returns the number of marriages recorded in 1899, 21,877, was the largest ever registered in Michigan. This, however, is due in part to the addition of a large number of marriages of nonresidents which were performed at St. Joseph during the excursion season, so that the true increase was probably not as large as indicated.

The marriage rate for the year, including these foreign marriages, was 18.0 per thousand population; that for the preceding year being 16.9 per thousand population.

The number of births returned for the year, 41,818, showed a marked falling off as compared with the preceding years of registration, and is the smallest number recorded since the year 1886. The birth rate was 17.2 per thousand population, which is the lowest rate on record in this State, that for the preceding year, 18.2 per thousand, having previously been the lowest.

All of the birth rates shown in Table 2 are known to be very much lower than the truth, nevertheless, as the method of enumeration has been the same throughout the years covered by the table, the relative indications as shown by the variations in the rates from year to year may be roughly taken as marking the changes in the birth rate. There has been, on the whole, a considerable decrease from the earlier years

of registration, the unusually high rates indicated for certain years, 1887-1891, having been due to fraudulent returns made by the enumerators appointed by the common council of the city of Detroit. It would be very desirable that these statistics of births should be collected in such a way that they might be reasonably accurate, and the conclusions drawn from them would then be acceptable without making the usual large discount for imperfect returns. Probably not much more than two-thirds of the births that actually occur in the State are enumerated at present under the antiquated and imperfect law which has received no amendment since 1869.

The number of deaths returned for the year 1899, 33,894, represents an increase of 4,337 over the number recorded for the preceding year. It may be true that this increase is due to some extent to the greater accuracy of registration, as the law had been in force only four months when the first statistics for the year 1898 were returned. It is probable, however, that the year 1898 was a year of phenomenally low mortality, and that the increased number of deaths shown for 1899 marks the return to the usual or normal condition of the death rate for this State. The rate per 100,000 population for the year, 14.0, is low as compared with those of other registration States and cities.

Both of the years 1898 and 1899 show a large increase in the number of deaths as compared with any of the preceding years of registration given in Table 2. This is not due to the fact that more deaths occurred in these latter years, but is caused by the fact that large numbers of deaths were not recorded under the old law providing for their enumeration by supervisors. Hence no comparison can be made between the number of deaths returned for the years 1898-99, under accurate registration, with the imperfect records of the preceding years.

The death rate shown for 1898, 12.4 per thousand population, is larger than the death rate of any preceding year, although, as stated, the year 1898 was undoubtedly a year of very low mortality; probably, indeed, the most favorable that has occurred in this State for over thirty years.

It will be noted that no attempt is made in Table 2 to indicate the excess of births over deaths for the two years of registration under the new law, 1898-99. This is necessarily so, because as the deaths are more accurately registered for these years than the births, it is evident that no just comparisons can be made. For the preceding years, both births and deaths being imperfectly enumerated, the differences may, perhaps, be taken as representing the amounts of natural increase, although it is very doubtful if they are of much value in this respect since there is nothing to show that the old returns of births and deaths were imperfect in the same degree.

In Table 3, the births and deaths are stated exclusively of stillbirths. It is the usual practice in statistical reports to exclude stillbirths from the computation of birth rates and death rates, hence in this table the total numbers of births and deaths, as given in Table 2, are reduced by the subtraction of the number of stillbirths reported for each year. The rates based on the returns exclusive of stillbirths, should ordinarily be used in making comparisons with other States and foreign countries.

VITAL STATISTICS AND POPULATION

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Table 2.—Marriages, births and deaths registered in Michigan, for the years 1867-99, with rates per 1,000 population. (Stillbirths included in both births and deaths.)

Years.	Population.	Registration returns, 1867-99.				Rates per 1,000 population.			
		Number of marriages.	Number of births.	Number of deaths.	Excess of births over deaths.	Persons married.	Births.	Deaths.	Excess of births over deaths.
1867*	993,902	4,312	14,000	4,400	9,591				
1868.	1,067,288	8,697	25,020	8,235	16,785	16.5	23.7	7.8	16.9
1869.	1,120,673	8,459	27,093	9,145	17,948	15.1	24.2	8.2	16.0
1870†	1,184,059	9,791	26,663	10,766	15,897	16.5	22.5	9.1	13.4
1871.	1,221,552	10,605	25,992	9,728	16,264	17.4	21.3	8.0	13.3
1872.	1,259,045	10,752	27,993	13,371	14,622	17.1	22.2	10.6	11.6
1873.	1,296,538	11,897	34,608	14,258	20,350	18.4	26.7	11.0	15.7
1874†	1,334,031	12,255	31,151	12,500	18,651	18.4	23.4	9.4	14.0
1875.	1,384,515	11,851	31,958	11,990	19,968	17.1	23.1	8.7	14.4
1876.	1,435,000	11,913	34,235	12,576	21,659	16.6	23.9	8.8	15.1
1877.	1,485,484	11,899	33,395	12,919	20,476	16.0	22.5	8.7	13.8
1878.	1,535,968	12,880	35,162	12,766	22,396	16.8	22.9	8.3	14.6
1879.	1,586,453	13,892	34,122	14,407	19,715	17.5	21.5	9.1	12.4
1880†	1,636,937	14,935	35,323	16,102	19,221	18.2	21.6	9.8	11.7
1881.	1,691,117	15,804	34,749	19,238	15,511	18.8	20.5	11.4	9.2
1882.	1,745,298	16,830	37,026	16,425	20,601	19.3	21.2	9.4	11.8
1883.	1,799,478	17,174	40,809	16,906	23,903	19.1	22.7	9.4	13.3
1884†	1,853,658	15,989	40,408	18,056	22,352	17.3	21.8	9.7	12.1
1885.	1,893,697	15,885	42,119	16,646	25,473	16.8	22.2	8.8	13.5
1886.	1,933,735	16,695	41,095	18,187	22,908	17.2	21.3	9.4	11.8
1887.	1,973,774	17,179	42,226	19,482	26,744	17.4	23.4	9.9	13.5
1888.	2,013,812	17,297	48,952	21,764	27,188	17.2	24.3	10.8	13.5
1889.	2,053,851	18,317	49,272	20,315	28,957	17.8	24.0	9.9	14.1
1890†	2,093,889	18,664	52,306	21,642	30,664	17.8	25.0	10.3	14.6
1891.	2,130,827	19,244	50,812	22,079	28,733	18.1	23.8	10.4	13.5
1892.	2,167,765	20,107	46,221	21,729	24,492	18.6	21.3	10.0	11.3
1893.	2,204,703	19,197	47,722	21,982	25,740	17.4	21.6	10.0	11.7
1894†	2,241,641	18,220	44,596	20,959	23,637	16.3	19.9	9.3	10.5
1895.	2,278,579	18,952	46,273	22,767	23,516	16.6	20.3	10.0	10.3
1896.	2,315,517	18,897	46,302	21,983	24,319	16.3	20.0	9.5	10.5
1897.	2,352,455	18,579	43,688	20,169	23,519	15.8	18.6	8.6	10.0
1898.	2,389,393	20,138	43,462	29,557	§	16.9	18.2	12.4	§
1899.	2,426,331	21,877	41,818	§ 33,894	§	18.0	17.2	14.0	§

* From April 5 to December 31, 1867.

† Census years.

‡ Including 83 deaths from townships under the old law.

§ Including 219 deaths from townships under the old law. See p. 102.

|| This difference is no longer stated. See text for explanation.

VITAL STATISTICS OF MICHIGAN, 1899

Table 3.—Births and deaths, with exclusion of stillbirths, registered in Michigan for the years 1867-99, with rates per 1,000 population.

Years.	Population.	Registration returns, 1867-99.			Rates per 1,000 population.			Still- births per 1,000 births.	Still- births per 1,000 deaths.
		Number of births.	Number of deaths.	Number of still- births.	Births.	Deaths.	Still- births.		
1867*.....	993,902	13,979	4,409	21	.....	.....	.....	1.5	.....
1868.....	1,057,288	24,968	8,189	52	23.6	7.7	.....	2.1	5.6
1869.....	1,120,673	26,952	9,016	141	24.0	8.0	0.1	5.2	14.3
1870†.....	1,184,059	26,589	10,540	74	22.5	8.9	0.1	2.8	21.4
1871.....	1,221,552	25,904	9,460	88	21.2	7.7	0.1	3.4	28.3
1872.....	1,259,045	27,692	13,167	268	22.0	10.5	0.2	10.9	15.5
1873.....	1,206,538	34,260	13,984	301	26.4	10.8	0.2	10.2	19.6
1874†.....	1,334,031	30,687	12,036	204	23.0	9.0	0.3	15.1	38.6
1875.....	1,384,515	31,329	11,361	348	22.6	8.2	0.5	20.1	55.4
1876.....	1,435,000	33,589	11,930	274	23.4	8.3	0.5	19.2	54.2
1877.....	1,485,484	32,675	12,199	.....	22.0	8.2	0.5	22.0	59.0
1878.....	1,535,968	34,369	11,973	.....	22.4	7.7	0.5	23.1	60.2
1879.....	1,586,453	33,373	13,658	.....	21.0	8.6	0.5	22.4	54.8
1880†.....	1,636,937	34,585	15,364	738	21.1	9.4	0.5	21.3	48.0
1881.....	1,691,117	34,658	18,547	691	20.1	11.0	0.4	20.3	37.3
1882.....	1,745,298	36,234	15,633	792	20.8	9.0	0.5	21.9	50.7
1883.....	1,799,478	39,925	16,022	884	22.2	8.9	0.5	22.1	55.2
1884†.....	1,853,658	39,489	17,137	919	21.3	9.2	0.5	23.3	53.6
1885.....	1,893,697	41,111	15,638	1,008	21.7	8.3	0.5	24.5	64.5
1886.....	1,933,735	40,186	17,278	909	20.8	8.9	0.5	22.6	52.6
1887.....	1,973,774	45,329	18,585	897	23.0	9.4	0.5	19.8	48.3
1888.....	2,013,812	47,594	20,400	1,358	23.6	10.1	0.7	28.5	66.5
1889.....	2,053,851	48,070	19,113	1,202	23.4	9.3	0.6	25.0	62.9
1890†.....	2,093,889	50,909	20,245	1,397	24.3	9.7	0.7	27.4	69.0
1891.....	2,130,827	49,722	20,989	1,090	23.3	9.9	0.5	21.9	51.9
1892.....	2,167,765	45,207	20,715	1,014	20.9	9.6	0.5	22.4	49.0
1893.....	2,204,703	46,703	20,963	1,019	21.2	9.5	0.5	21.8	48.6
1894†.....	2,241,641	43,594	19,957	1,002	19.4	8.9	0.4	22.5	50.2
1895.....	2,278,579	45,164	21,648	1,109	19.8	9.5	0.5	24.0	48.7
1896.....	2,315,517	45,048	20,729	1,254	19.5	9.0	0.5	27.1	57.0
1897.....	2,352,455	42,669	19,150	1,019	18.1	8.1	0.4	23.8	53.2
1898.....	2,389,393	42,910	28,248	552	18.0	11.8	0.2	12.9	46.3
1899.....	2,426,331	41,218	32,500	1,309	17.0	13.4	0.5	14.6	42.9

* From April 5 to December 31, 1867.

† Census years.

‡ For these years two statements are given of the number of stillbirths, the upper figures representing the number returned in births, the lower in deaths.

§ Including 83 deaths in nonregistration townships, 9 of which were stillbirths.

|| Including 219 deaths in nonregistration townships, 8 of which were stillbirths.

In both Table 2 and Table 3, the estimates of population are uniformly made by assuming that the population increased between the census years in arithmetical progression. This method has been proved to be more reliable for the estimate of the population of this State than the geometrical method sometimes employed, as was conclusively shown in the registration report for the year 1898. The figures for the intercensal years, up to and including 1894, will not be subject to further change. Those for the postcensal years, 1895-99, are based on the average annual increase between the United States census of 1890 and the State census of 1894 and will be subject to revision as soon as the intercensal populations can be calculated from the State census of 1894 and the United States census of 1900. As the full population data of the latter are not yet at hand, it seems expedient to continue the old basis of computation until a thorough revision can be made of the estimated populations since 1894.

MICHIGAN VITAL STATISTICS COMPARED WITH THOSE OF OTHER STATES AND COUNTRIES.

The significance of the vital rates of any state or country cannot be fully known until comparisons have been made with those of others. While the crude marriage, birth and death rates are not sufficient for the formation of absolutely reliable conclusions relative to the exact intensity of the marriage movement, or of the fecundity or sanitary condition of the populations so measured, nevertheless the crude rates, taken without correction for dissimilar constitution of the population, must always form the first step in the comparative study of vital statistics. By means of the data contained in Tables 4, 5 and 6, which are chiefly derived from the tables of international statistics printed in the last report of the Registrar-General of England, the vital rates of Michigan for fifteen years past may be compared with those of various European countries, and also with the rates of certain states in this country and with those of New Zealand and New South Wales, as representative of the vital statistics of Australasia. Some statistics for Japan have also been added from the reports of the Imperial Bureau of Statistics of that country, and are of especial interest as comparing the movement of population of an oriental country with the European, American and Australasian data presented. In Diagram II some of the most typical vital statistics are graphically represented, and enable the movement of the vital rates of Michigan to be conveniently compared with those of other states and countries.

In the middle section of Diagram II, which presents the birth rates given in Table 5, we note at once the wide differences existing between the various countries and states as regards the number of children born per thousand population. In many cases a declining birth rate is shown, which is especially marked in the Australasian colonies. Massachusetts is an apparent exception to the general tendency in this respect. As to Michigan, while a declining birth rate is indicated, it must be remembered that our statistics of births are so imperfect that no very conclusive deductions can be based upon them. According to the returns, the State has a lower birth rate than either France or Ireland. Ireland is

Table 4.—Persons married per 1,000 living population in certain countries and states during the years 1885-99.

Country or state.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.
Austria	15.4	15.7	15.8	16.0	15.1	15.1	15.6	15.6	15.9	15.8	16.2	15.9	16.2	15.7	16.5
Belgium	13.6	13.4	14.2	14.2	14.5	14.5	14.8	15.4	15.2	15.1	15.5	16.2	16.4	16.6	16.5
Denmark	15.1	14.2	14.0	14.2	14.2	13.8	13.6	13.6	14.1	13.9	14.2	14.6	15.0	15.2	15.1
France	14.9	14.8	14.5	14.4	14.2	14.0	15.0	15.2	15.0	15.0	14.8	15.2	15.2	14.8	15.3
German Empire	15.8	15.8	15.6	15.6	16.0	16.1	16.1	15.9	15.8	15.9	15.9	16.4	16.7	16.9	17.1
Prussia	16.4	16.3	16.0	16.0	16.3	16.4	16.3	16.1	16.1	16.1	16.0	16.5	16.8	16.9	17.1
Holland	13.9	13.9	14.0	13.8	13.9	14.2	14.2	14.4	14.6	14.4	14.7	14.9	14.8	14.6	14.9
Hungary	20.1	19.3	18.0	18.7	16.3	16.4	17.2	18.4	18.7	18.4	16.9	16.0	16.2	16.6	17.9
Italy	16.0	15.9	15.9	15.9	15.4	14.7	15.0	15.0	14.8	15.0	14.7	14.2	14.5	13.9	14.8
Japan						16.1	16.0	17.0	17.3	17.3	17.3	23.5	16.9	21.5	.....
New South Wales	16.4	16.1	15.1	15.1	14.1	14.3	14.8	13.6	12.9	12.5	12.8	13.3	13.5	13.4	13.8
New Zealand	13.4	12.0	12.0	12.0	11.9	12.2	12.1	12.5	12.4	12.3	11.9	13.7	13.7	13.8	14.6
Norway	13.3	13.0	12.5	12.2	12.5	13.0	13.2	12.7	12.9	12.8	13.0	13.4	13.4	14.0	14.3
Sweden	13.3	12.8	12.5	11.8	12.0	12.0	11.7	11.4	11.3	11.5	11.7	11.9	12.1	12.3	12.5
Switzerland	14.0	13.9	14.2	14.2	14.1	14.0	14.2	14.4	14.3	14.3	14.5	15.0	15.6	15.5	15.6
United Kingdom	13.6	13.3	13.5	13.5	14.1	14.5	14.6	14.5	13.9	14.2	14.3	15.0	15.2	15.4	15.7
England and Wales	14.5	14.2	14.4	14.4	15.0	15.5	15.6	15.4	14.7	15.1	15.0	15.8	16.0	16.3	16.5
Ireland	8.6	8.4	8.6	8.4	9.0	8.9	9.2	9.3	9.4	9.4	10.1	10.1	10.1	9.9	9.8
Scotland	13.1	12.6	12.7	8	13.3	13.7	13.9	14.1	13.3	13.4	13.7	14.5	14.7	15.1	15.4
United States:															
Massachusetts	17.6	18.0	19.0	18.7	18.7	18.6	18.9	19.2	19.1	16.9	18.5	18.5	17.6	16.6	17.2
Michigan	16.8	17.2	17.4	17.2	17.8	17.8	18.1	18.6	17.4	16.3	16.6	16.3	15.8	16.9	18.0
Rhode Island	16.3	17.7	18.0	18.7	17.3	18.4	18.5	19.1	18.7	17.4	18.2	17.0	15.6	15.8	16.2

depleted of a large portion of its population which should contribute to the birth rate by the large emigration which has long been going on. France is the only European country whose natural increase of population just suffices to maintain it in a stationary condition, without material increase. It is unlikely that a young and vigorous State, like Michigan, with a large proportion of immigrants in its population at the most fertile periods of life, should actually show a lower birth rate than either France or Ireland. The discrepancy arises from the fact that the Michigan law for the registration of births, which has not been amended since 1869, and which has been fully demonstrated to be a failure for the purposes for which it was designed, annually fails to include a large num-

Table 5.—Births registered per 1,000 living population in certain countries and states during the years 1885-99. (Stillbirths excluded.)

Country or state.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.
Austria	37.6	38.0	38.2	37.9	37.9	36.7	37.0	36.2	37.9	36.7	38.1	38.0	37.5	36.2	37.1
Belgium	29.9	29.6	29.4	29.1	29.5	28.7	29.6	28.9	29.5	29.0	28.5	29.0	29.0	28.6	28.8
Denmark	32.6	32.6	32.0	31.7	31.3	30.6	31.0	29.5	30.6	30.2	30.2	30.5	29.9	30.5	30.1
France.....	24.2	23.9	23.5	23.1	23.0	21.8	22.6	22.1	22.9	22.4	21.9	22.7	22.4	21.8	21.9
German Empire.....	37.0	37.0	36.9	36.6	36.4	35.7	37.0	35.7	36.8	35.9	36.1	36.3	36.0	36.2	35.9
Prussia.....	37.7	37.7	37.7	37.4	37.1	36.6	37.7	36.3	37.5	36.6	36.9	36.9	36.6	36.8	36.4
Holland.....	34.4	34.6	33.7	33.7	33.2	32.9	33.7	32.0	33.8	32.7	32.8	32.7	32.5	31.9	32.0
Hungary.....	44.8	45.6	44.2	43.8	43.7	40.3	42.3	40.3	42.5	41.3	41.5	40.3	40.1	37.5	39.0
Italy	38.5	37.0	39.0	37.6	38.4	35.9	37.3	36.3	36.7	35.7	35.1	35.0	35.0	33.8	34.2
Japan.....	26.9	27.3	27.1	29.6	30.2	29.2	27.2	30.7	30.0	29.9	30.3	30.8	31.4	31.3	.....
New South Wales.....	37.8	37.4	37.1	37.2	35.0	35.4	34.5	34.0	33.5	31.6	31.0	28.6	28.7	27.4	27.1
New Zealand.....	34.4	33.2	32.1	31.2	30.1	29.4	29.0	27.8	27.5	27.3	26.8	26.3	26.0	25.7	25.1
Norway	31.3	30.9	30.8	30.8	29.7	30.3	30.9	29.6	30.7	29.8	30.6	30.4	30.0	30.3	30.9
Sweden	29.4	29.8	29.7	28.8	27.7	28.0	28.3	27.0	27.4	27.1	27.5	27.2	26.7	27.1	26.2
Switzerland.....	28.0	28.0	28.0	27.8	27.6	26.4	27.8	27.4	27.7	27.1	27.1	27.9	28.1	28.4	28.9
United Kingdom.....	31.6	31.5	30.7	30.1	30.0	29.2	30.4	29.5	29.9	28.9	29.5	29.2	29.1	28.8	28.7
England and Wales...	32.9	32.8	31.9	31.2	31.1	30.2	31.4	30.5	30.8	29.6	30.4	29.7	29.7	29.4	29.3
Ireland.....	23.5	23.2	23.1	22.8	22.7	22.3	23.1	22.5	23.0	22.9	23.2	23.6	23.5	23.2	22.9
Scotland.....	32.7	32.9	31.7	31.3	30.9	30.4	31.2	30.8	31.0	30.2	30.4	30.9	30.6	30.8	30.5
United States*.....						26.7									
Connecticut.....	22.7	22.2	22.8	22.2	23.4	23.3	24.8	24.7	25.4	24.9	24.4	24.9	23.3	23.5	22.6
Massachusetts.....	25.1	25.4	25.9	26.0	26.2	25.8	27.5	28.1	28.1	27.4	27.0	28.3	28.0	27.4	25.8
Michigan	21.7	20.8	21.1	20.3	21.3	19.8	20.8	20.9	21.2	19.4	19.8	19.5	18.1	18.0	17.0
New Jersey.....	18.8	20.0	21.4	22.0	20.8	20.9	19.5	20.3	21.0	21.3	19.0	18.2	18.0	18.0	15.8
Rhode Island.....	23.1	24.5	24.2	24.2	24.1	24.7	26.5	25.2	26.5	26.6	25.7	27.3	26.8	25.9	25.6

* Stillbirths included.

ber of the births which actually occur in the State. It might be objected that, such being the case, it would be preferable to omit discussion of the Michigan statistics of births as well as their representation in a diagram in comparison with the presumably accurate statistics of other states and countries. This was done, however, chiefly for the reason that such imperfections might be clearly displayed by comparison with more accurate rates, and hence, possibly steps be taken to improve our data; and secondly for the reason that while the absolute rates are unreliable, the fluctuations observed in the imperfect rates may possibly give some correct suggestions as to the actual variations in the birth rates of Michigan from year to year.

DIAGRAM II.—COMPARATIVE MARRIAGE RATES, BIRTH RATES AND DEATH RATES, 1884-99.

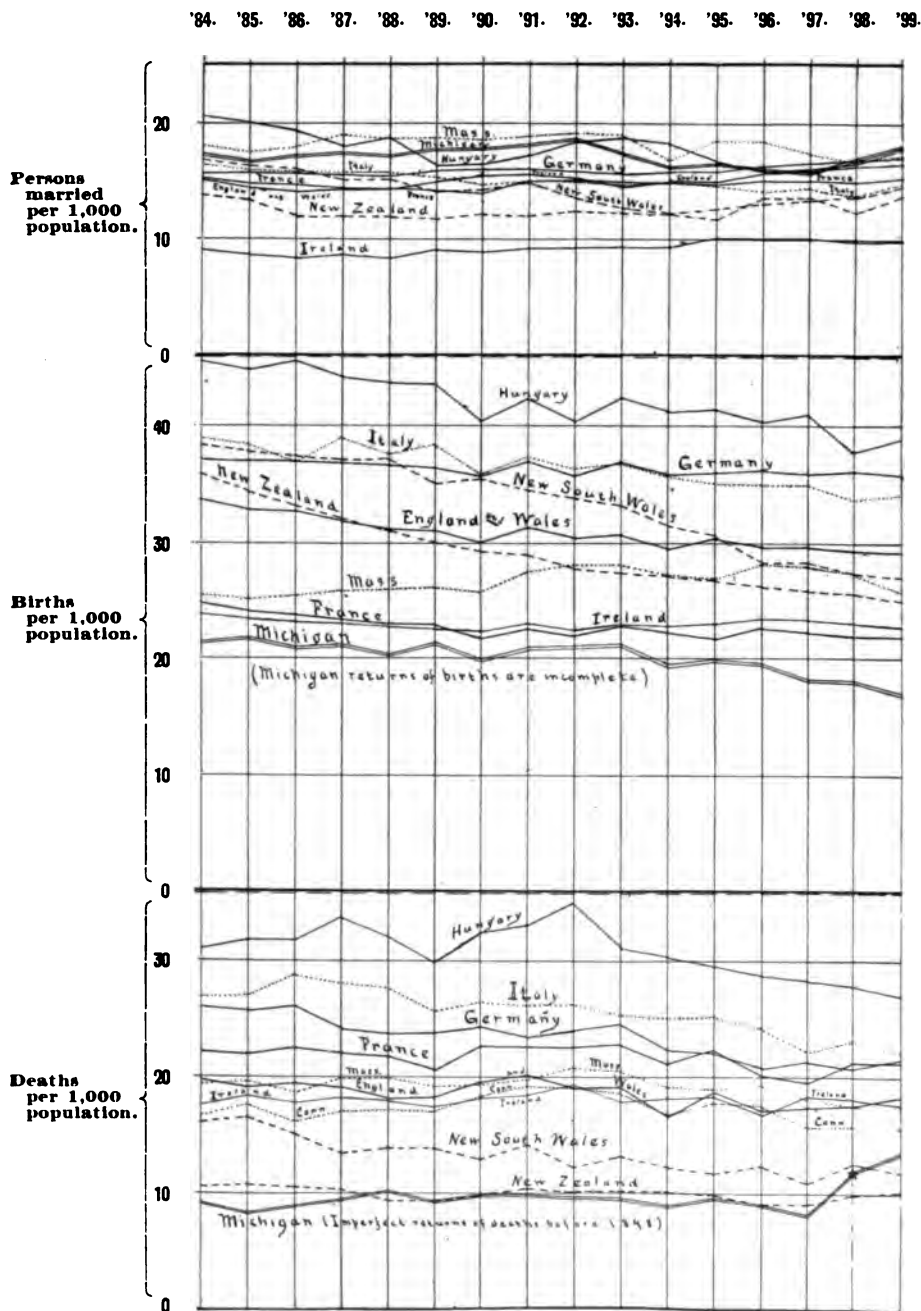


Table 6.—Deaths registered per 1,000 living population in certain countries and states during the years 1885-99. (Stillbirths excluded.)

Country or state.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.
Austria	30.1	29.4	28.9	29.2	27.3	29.4	28.2	28.8	27.2	27.8	27.7	26.4	25.6	24.9	25.4
Belgium	20.1	21.1	19.3	20.1	19.1	20.6	21.0	21.8	20.3	18.6	19.5	17.5	17.2	17.6	18.8
Denmark	17.9	18.2	18.3	19.7	18.6	19.0	20.0	19.4	18.9	17.5	16.9	15.7	16.6	15.6	17.5
France	21.9	22.5	22.0	21.8	20.5	22.6	22.6	22.6	22.8	21.2	22.3	20.2	19.6	20.9	21.1
German Empire	25.7	26.2	24.2	23.7	23.7	24.4	23.4	24.1	24.6	22.3	22.1	20.8	21.3	20.6	21.5
Prussia	25.4	26.1	23.8	22.8	23.2	24.0	22.9	23.4	24.2	21.8	21.8	20.7	20.9	20.1	21.4
Holland	21.0	21.8	19.7	20.4	20.1	20.5	20.7	21.0	19.2	18.5	18.6	17.2	16.9	17.0	17.1
Hungary	31.8	31.7	33.8	32.0	29.9	32.4	33.1	35.0	31.1	30.4	29.6	28.8	28.4	27.8	27.0
Italy	27.0	28.7	28.0	27.6	25.6	26.4	26.2	26.3	25.3	25.1	25.2	24.2	22.1	23.1	22.1
Japan	22.7	24.6	19.3	19.1	20.4	20.4	21.0	21.7	22.8	20.5	20.4	21.6	20.5	20.4	.....
New South Wales	16.5	15.1	13.4	13.9	13.9	12.9	14.3	12.2	13.3	12.3	11.9	12.4	11.0	12.6	11.8
New Zealand	10.7	10.5	10.3	9.4	9.4	9.7	10.4	10.1	10.2	10.2	9.9	9.1	9.1	9.8	10.2
Norway	16.6	16.1	16.0	16.9	17.4	17.9	17.5	17.8	16.3	16.9	15.7	15.2	15.3	15.3	16.8
Sweden	17.8	16.6	16.1	16.0	16.0	17.1	16.8	17.9	16.8	16.4	15.2	15.6	15.4	15.1	17.6
Switzerland	21.4	20.8	20.3	20.0	20.3	20.8	20.4	18.8	19.9	19.9	19.1	17.7	17.6	18.2	17.6
United Kingdom	19.1	19.2	19.0	18.1	18.1	19.4	20.0	19.0	19.1	16.8	18.8	17.1	17.7	17.7	18.3
England and Wales ...	19.2	19.5	19.1	18.1	18.2	19.5	20.2	19.0	19.2	16.6	18.7	17.1	17.4	17.6	18.3
Ireland	18.4	17.8	18.2	17.9	17.4	18.2	18.4	19.4	17.9	18.2	18.4	16.6	18.4	18.1	17.6
Scotland	19.3	18.9	19.0	18.0	18.4	19.7	20.7	18.6	19.5	17.2	19.7	16.9	18.8	18.4	18.6
United States* .....	.....	.....	.....	.....	.....	14.0	.....	.....	.....	.....	.....	.....	.....	.....	.....
Connecticut	17.6	16.2	17.0	17.1	17.0	18.3	19.2	19.0	18.6	16.8	17.8	17.5	15.7	15.8	15.7
Massachusetts	19.6	18.6	19.9	19.9	19.2	19.4	19.7	20.8	20.5	19.1	19.6	19.3	18.1	17.5	17.4
Michigan	8.3	8.9	9.4	10.1	9.3	9.7	9.9	9.6	9.5	8.9	9.5	9.0	8.1	11.8	13.4
New Jersey	18.6	17.8	19.0	17.0	19.0	19.8	19.5	21.6	19.9	19.1	18.3	17.9	16.9	15.1	16.7
Rhode Island	17.7	18.8	19.9	20.4	19.0	20.1	18.6	20.1	19.6	19.1	19.6	19.1	17.6	16.7	17.6

* Stillbirths included.

† New registration law for deaths in effect in Michigan for 1898.

Most important of all of the rates represented in Diagram II are those of mortality, as shown in the lower part of the diagram and corresponding to the data given in Table 6. Not all of the rates given in the table are shown in the diagram, but only the more important ones, which may be taken as fairly representative of the conditions of registered mortality in this country, Europe and Australasia for the period covered.

It will be noted that the European rates are considerably higher than those of either America or Australasia. This may depend, in part, upon the greater accuracy of registration in Europe, but is not entirely due to this cause. Highest in the list comes Hungary, then Italy, Germany, France and England in about the order named. England alone has a rate of mortality that agrees substantially with that shown for States generally accepted as having accurate registration in this country, and

England undoubtedly corresponds more closely to the general conditions of social existence in the United States than any of the other countries. Wherever colonies of the Hungarians and Italians are found in the United States, high birth rates and high death rates, dependent chiefly upon great infant mortality, are found associated.

The extremely low Australasian rates may be due, in part, to the very favorable age distribution of population. The era of "assisted immigration" is not long past in those colonies, now forming a great Anglo-Saxon Nation whose statistics are especially interesting in comparison with American data, and the remarkably low death rates of New Zealand, for example, can hardly be expected to continue.

As shown by the star, the first reliable Michigan death rates begin with the year 1898. The apparent increase of mortality in 1898 and 1899 is merely due to increased accuracy of registration of deaths.

RETURNS COMPARED WITH POPULATION, BY COUNTIES, 1899.

In Table 7 estimated populations are given for each of the counties of the State based on the average annual increase as shown by the State census of 1894 over the United States census of 1890. In some rapidly growing counties these estimates are not entirely satisfactory, and should be checked by comparisons with the populations given by the United States census of 1900.

The numbers of deaths, marriages, divorces and births returned from each county are also shown and the corresponding rates per thousand population for the year. Following the usual custom, the marriage and divorce rates are stated, not as so many marriages and divorces per thousand population, but as *persons married* and *persons divorced* per thousand population.

As shown by a somewhat exhaustive comparison in the last report, the crude figures representative of the vital rates of different counties cannot be directly compared without considering the age distribution and other important elements of the population. Thus, the number of deaths will be larger in proportion to the population, other things being equal, in the counties having the largest number of children under five years of age, and also in counties having unusual proportions of elderly persons.

Persons married should properly be compared, not with the total population, but with the number of unmarried persons of marriageable age. In like manner, divorce rates should be based on the number of married persons in the population affording them, and birth rates should be based upon the number of married couples (neglecting the small factor of illegitimacy), or, as is usually more convenient, by referring to the number of women of childbearing age in the community.

These considerations are given so that the mistake may not be made of accepting the vital rates given in these tables as absolutely conclusive and hence basing erroneous deductions thereon. Such rates are necessary and form the first step in any statistical investigation of this character, but they require to be fully analyzed before absolutely reliable conclusions can be drawn.

It should be remembered that in some of the counties in the Upper Peninsula and in the northern portion of the Lower Peninsula, as shown on page 102, not all deaths were accurately registered in 1899 under the law requiring burial permits. These were in sparsely settled districts, having less than five persons to the square mile, according to the State census of 1894, and were supposed to be collected by the supervisors under the old law. An act of the legislature has since abolished these nonregistration districts, so that the slight errors due to imperfect enumeration are now done away with, but they may have slightly affected the statistics for the year 1899.

The death rates shown in Table 7 do not, as a rule, vary very widely from the State average of 14.0 per thousand population. All of the rates for Alger county are excessive because the county increased much more rapidly in population from 1894 to 1899 than the estimate, based on the increase between the former censuses, would indicate.

The marriage rate for Berrien county is worthless because of the large number of foreign marriages, including mostly residents of Chicago, who take advantage of the proximity of St. Joseph during the summer months.

COMPARISONS OF RETURNS FOR THE YEARS 1898-99.

In Table 8 the returns of deaths, marriages, divorces and births are shown for each county for the past two years, and also the increase or decrease of the returns of the year 1899 as compared with those of the preceding year.

There was an increase of 4,337 deaths in the State for 1899 over 1898 and, as shown by an examination of the list of counties, this increase was uniformly distributed, very few counties showing a decreased number for the present year.

The number of marriages increased 1,739, of which number 633 corresponded to the increase for the county of Berrien. Quite a large number of counties showed a decreased number of marriages for the year, as compared with the preceding one. The largest amount of decrease occurred in the counties of Macomb and Ottawa.

The number of divorces also showed a considerable increase for 1899 over 1898, but this may have been due in part to the greater accuracy of county clerks in making returns for the latter year. It is probable that a portion of this increase was in fact due to a higher divorce rate, but it will require comparisons of quite a large number of years to determine this fact conclusively.

The largest amounts of increase in the number of divorces for the year occurred in the counties of Wayne, Kent, Gratiot and Ionia, and the largest amounts of decrease occurred in the counties of Ingham and Calhoun.

Births decreased 1,644 for the year and the decrease was quite uniformly distributed over the State. The largest amounts of decrease occurred in the counties of Wayne, Berrien, Kent, Macomb, Manistee and Ottawa, and the largest amounts of increase in the counties of Alpena, Chippewa and Houghton.

Table 7.—Deaths, marriages, divorces and births in Michigan by counties, for the year 1899, with rates per 1,000 estimated population.

State and counties.	Estimated population of Michigan, June, 1899.*	Number of deaths registered, 1899.†	Number of marriages registered, 1899.	Number of divorces granted, 1899.	Number of births registered, 1899.	Rates per 1,000 population, 1899.			
						Deaths.	Persons married.	Persons divorced.	Births.
STATE	2,426,331	33,804	21,877	2,218	41,818	14.0	18.0	1.8	17.2
Alcona	5,429	43	38	1	56	7.9	14.0	0.4	10.3
Alger	1,569	92	43	5	129	58.6	54.8	6.4	82.2
Allegan	39,474	572	323	40	627	14.5	16.4	2.0	15.9
Alpena	20,387	233	174	8	451	11.4	17.1	0.8	22.1
Antrim	14,945	233	150	22	207	15.6	20.1	2.9	13.9
Arenac	8,518	127	73	7	152	14.9	17.1	1.6	17.8
Baraga	5,727	65	26	1	68	11.3	9.1	0.3	11.9
Barry	23,594	296	227	30	253	12.5	19.2	2.5	10.7
Bay	67,419	803	506	34	1,376	11.9	15.0	1.0	20.4
Benzie	11,596	136	72	9	172	11.7	12.4	1.6	14.8
Berrien	51,073	653	\$ 1,077	54	482	12.8	\$ 42.2	2.1	9.4
Branch	25,477	402	296	31	325	15.8	23.2	2.4	12.8
Calhoun	52,436	765	476	50	529	14.6	18.2	1.9	10.1
Cass	21,465	298	219	16	222	13.9	20.4	1.5	10.3
Charlevoix	12,734	157	136	3	187	12.3	21.4	0.5	14.7
Cheboygan	16,293	217	130	16	278	13.3	16.0	2.0	17.1
Chippewa	19,451	266	165	7	398	13.7	17.0	0.7	20.5
Clare	8,499	93	69	9	106	10.9	16.2	2.1	12.5
Clinton	25,963	340	234	32	410	13.1	18.0	2.5	15.8
Crawford	2,305	26	23	1	67	10.9	19.2	0.8	28.0
Delta	24,177	310	215	11	490	12.8	17.8	0.9	20.3
Dickinson	15,633	243	161	5	543	15.5	20.6	0.6	34.7
Eaton	33,273	439	337	27	379	13.2	20.3	1.6	11.4
Emmet	13,011	166	132	13	200	12.8	20.3	2.0	15.4
Genesee	41,957	565	404	61	496	13.5	19.3	2.9	11.8
Gladwin	5,765	47	47	5	99	8.2	16.3	1.7	17.2
Gogebic	15,229	213	148	6	482	14.0	19.4	0.8	31.7
Gd. Traverse	22,715	312	217	40	289	13.7	19.1	3.5	12.7
Gratiot	28,911	415	312	69	426	14.4	21.6	4.8	14.7
Hillsdale	29,787	448	308	35	284	15.0	20.7	2.4	9.5
Houghton	55,158	1,002	645	27	2,242	18.2	23.4	1.0	40.6
Huron	36,895	393	253	7	729	10.7	13.7	0.4	19.8
Ingham	42,218	538	401	43	497	12.7	19.0	2.0	11.8
Ionia	37,344	502	314	41	416	13.4	16.8	2.2	11.1
Iosco	8,735	150	71	8	174	17.2	16.3	1.8	19.9
Iron	5,629	56	69	0	105	9.9	24.5	.....	18.7
Isabella	24,758	301	187	13	365	12.2	15.1	1.1	14.7
Jackson	48,415	644	504	86	668	13.3	20.8	3.6	13.8
Kalamazoo	45,535	699	456	60	473	15.4	20.0	2.6	10.4
Kalkaska	6,240	110	79	5	100	17.6	25.3	1.6	16.0
Kent	136,958	2,011	1,363	220	2,123	14.7	19.0	3.2	15.5
Keweenaw	2,525	45	19	0	81	17.8	15.0	.....	32.1
Lake	5,137	76	50	2	77	14.8	19.5	0.4	15.0
Lapeer	28,462	300	244	18	326	13.7	17.1	1.3	11.5
Leelanau	11,343	181	77	2	187	16.0	13.6	0.4	16.5
Lenawee	48,657	646	459	49	522	13.3	18.9	2.0	10.7
Livingston	19,911	280	173	23	186	14.1	17.4	2.3	9.3
Luce	2,214	28	22	1	74	12.6	19.9	0.9	13.4
Mackinac	6,496	84	57	2	111	12.9	17.5	0.6	11.1
Macomb	33,105	522	229	22	471	15.8	13.8	1.3	14.2
Manistee	28,469	383	210	16	576	13.5	14.8	1.1	20.2
Marquette	40,420	568	357	14	1,200	14.1	17.7	0.7	29.7
Mason	20,968	223	140	5	423	10.6	13.4	0.5	20.2
Mecosta	22,019	326	175	24	321	14.8	15.9	2.2	14.6
Menominee	25,246	373	214	10	601	14.8	17.0	0.8	23.8
Midland	16,419	203	118	8	272	12.4	14.4	1.0	16.6
Missaukee	9,339	88	80	6	209	9.4	17.1	1.3	22.4
Monroe	34,236	429	314	25	527	12.5	18.3	1.5	15.4

*, †, etc. See notes at end of table.

Table 7.—Concluded.—Deaths, marriages, divorces and births in Michigan by counties, for the year 1899, with rates per 1,000 estimated population.

Counties.	Estimated population of Michigan, June, 1899.*	Number of deaths registered, 1899.†	Number of marriages registered, 1899.	Number of divorces granted, 1899.	Number of births registered, 1899.	Rates per 1,000 population, 1899.			
						Deaths.	Persons married.	Persons divorced.	Births.
Montcalm.	36,059	550	318	30	430	15.3	17.6	1.7	12.2
Montmorency.	3,627	17	15	0	56	4.7	8.3	.....	15.4
Muskegon.	33,963	461	308	34	625	13.6	18.1	2.0	18.4
Newaygo.	17,436	250	158	16	260	14.3	18.1	1.8	14.9
Oakland.	44,465	617	320	43	465	13.9	14.4	1.9	10.5
Oceana.	17,725	195	161	21	268	11.0	18.2	2.4	15.1
Ogemaw.	5,707	70	59	0	84	12.3	20.7	.....	14.7
Ontonagon.	10,769	54	31	1	40	5.0	5.8	0.2	3.7
Osceola.	18,781	211	160	9	318	11.2	17.0	1.0	16.9
Oscoda.	1,684	9	5	1	20	5.3	5.9	1.2	11.9
Otsego.	5,447	52	57	10	109	9.5	20.9	3.7	20.0
Ottawa.	43,739	611	291	12	721	14.0	13.3	0.5	16.5
Presque Isle.	7,441	45	68	6	158	6.0	18.3	1.6	21.2
Roscommon.	1,187	12	12	1	33	10.1	20.2	1.7	27.8
Saginaw.	81,315	1,063	698	60	1,823	13.1	17.2	1.7	22.4
St. Clair.	57,001	751	483	34	872	13.2	16.9	1.2	15.3
St. Joseph.	24,751	328	217	21	256	13.3	17.5	1.7	10.3
Sanilac.	35,640	402	287	14	680	11.3	16.1	0.8	19.1
Schoolcraft.	8,763	67	71	0	198	7.6	16.2	.....	22.6
Shiawassee.	35,232	481	309	44	400	13.7	20.9	2.5	11.4
Tuscola.	36,792	433	297	25	492	11.8	16.1	1.4	13.4
Van Buren.	31,707	470	322	48	342	14.8	20.3	3.0	10.8
Washtenaw.	45,133	631	357	50	515	14.0	15.8	2.2	11.4
Wayne.	336,646	5,652	2,677	323	8,105	16.8	15.9	1.9	24.1
Wexford.	17,508	236	178	21	300	13.5	20.3	2.4	17.1

* Population estimated by average annual increase as shown by State census of 1894 over U. S. census of 1890. Where counties have made unusually rapid growth since the last census, the estimates of population cannot be depended upon, nor are the rates based thereon reliable.

† Including 219 deaths from non-registration townships. See p. 102.

‡ Rates for this county are too large as computed on basis of former increase. Population was much in excess of estimates.

§ This includes many marriages of residents of Chicago during the summer excursion season.

England undoubtedly corresponds more closely to the general conditions of social existence in the United States than any of the other countries. Wherever colonies of the Hungarians and Italians are found in the United States, high birth rates and high death rates, dependent chiefly upon great infant mortality, are found associated.

The extremely low Australasian rates may be due, in part, to the very favorable age distribution of population. The era of "assisted immigration" is not long past in those colonies, now forming a great Anglo-Saxon Nation whose statistics are especially interesting in comparison with American data, and the remarkably low death rates of New Zealand, for example, can hardly be expected to continue.

As shown by the star, the first reliable Michigan death rates begin with the year 1898. The apparent increase of mortality in 1898 and 1899 is merely due to increased accuracy of registration of deaths.

RETURNS COMPARED WITH POPULATION, BY COUNTIES, 1899.

In Table 7 estimated populations are given for each of the counties of the State based on the average annual increase as shown by the State census of 1894 over the United States census of 1890. In some rapidly growing counties these estimates are not entirely satisfactory, and should be checked by comparisons with the populations given by the United States census of 1900.

The numbers of deaths, marriages, divorces and births returned from each county are also shown and the corresponding rates per thousand population for the year. Following the usual custom, the marriage and divorce rates are stated, not as so many marriages and divorces per thousand population, but as *persons married* and *persons divorced* per thousand population.

As shown by a somewhat exhaustive comparison in the last report, the crude figures representative of the vital rates of different counties cannot be directly compared without considering the age distribution and other important elements of the population. Thus, the number of deaths will be larger in proportion to the population, other things being equal, in the counties having the largest number of children under five years of age, and also in counties having unusual proportions of elderly persons.

Persons married should properly be compared, not with the total population, but with the number of unmarried persons of marriageable age. In like manner, divorce rates should be based on the number of married persons in the population affording them, and birth rates should be based upon the number of married couples (neglecting the small factor of illegitimacy), or, as is usually more convenient, by referring to the number of women of childbearing age in the community.

These considerations are given so that the mistake may not be made of accepting the vital rates given in these tables as absolutely conclusive and hence basing erroneous deductions thereon. Such rates are necessary and form the first step in any statistical investigation of this character, but they require to be fully analyzed before absolutely reliable conclusions can be drawn.

It should be remembered that in some of the counties in the Upper Peninsula and in the northern portion of the Lower Peninsula, as shown on page 102, not all deaths were accurately registered in 1899 under the law requiring burial permits. These were in sparsely settled districts, having less than five persons to the square mile, according to the State census of 1894, and were supposed to be collected by the supervisors under the old law. An act of the legislature has since abolished these nonregistration districts, so that the slight errors due to imperfect enumeration are now done away with, but they may have slightly affected the statistics for the year 1899.

The death rates shown in Table 7 do not, as a rule, vary very widely from the State average of 14.0 per thousand population. All of the rates for Alger county are excessive because the county increased much more rapidly in population from 1894 to 1899 than the estimate, based on the increase between the former censuses, would indicate.

The marriage rate for Berrien county is worthless because of the large number of foreign marriages, including mostly residents of Chicago, who take advantage of the proximity of St. Joseph during the summer months.

COMPARISONS OF RETURNS FOR THE YEARS 1898-99.

In Table 8 the returns of deaths, marriages, divorces and births are shown for each county for the past two years, and also the increase or decrease of the returns of the year 1899 as compared with those of the preceding year.

There was an increase of 4,337 deaths in the State for 1899 over 1898 and, as shown by an examination of the list of counties, this increase was uniformly distributed, very few counties showing a decreased number for the present year.

The number of marriages increased 1,739, of which number 633 corresponded to the increase for the county of Berrien. Quite a large number of counties showed a decreased number of marriages for the year, as compared with the preceding one. The largest amount of decrease occurred in the counties of Macomb and Ottawa.

The number of divorces also showed a considerable increase for 1899 over 1898, but this may have been due in part to the greater accuracy of county clerks in making returns for the latter year. It is probable that a portion of this increase was in fact due to a higher divorce rate, but it will require comparisons of quite a large number of years to determine this fact conclusively.

The largest amounts of increase in the number of divorces for the year occurred in the counties of Wayne, Kent, Gratiot and Ionia, and the largest amounts of decrease occurred in the counties of Ingham and Calhoun.

Births decreased 1,644 for the year and the decrease was quite uniformly distributed over the State. The largest amounts of decrease occurred in the counties of Wayne, Berrien, Kent, Macomb, Manistee and Ottawa, and the largest amounts of increase in the counties of Alpena, Chippewa and Houghton.

PART II.—DEATHS AND CAUSES OF DEATHS IN MICHIGAN DURING THE YEAR 1899.

There were 33,894 deaths returned to the Department of State for the year 1899, which number includes 33,675 deaths registered in townships under the law requiring certificates of death and burial permits, and 219 deaths returned from sparsely settled districts by supervisors under the old law. As the latter deaths were not received at the State Department until nearly a year after the returns from the registration districts, and as, moreover, the deaths returned by the supervisors are not distributed through the months of the year as deaths actually occurring in these districts, it was thought best not to vitiate the returns received from the promptly reporting districts under the new law by introducing the few deaths returned by supervisors. It would also have resulted in considerable delay to have included the latter, as the returns received from the registration districts were compiled before the law required the supervisors' returns to be received. Fortunately, by an act of the last legislature, the nonregistration districts have been abolished, and all deaths are now registered in Michigan as they occur.

In Table 1, Part I, may be seen the number of deaths returned for each month of the year 1899, together with the daily average. The largest number of deaths returned occurred during the first four months of the year, and the largest number in any single month was in February. As this is the shortest month in the year, the average number for February was also very high, being 136.7 deaths per day. The smallest number of deaths and the smallest average number were for the month of June, being 2,242 and 74.7, respectively.

The total number of deaths returned from registration districts, 33,675, includes 1,386 stillbirths, and the total number of deaths as given in Table 2, 33,894, includes 8 additional stillbirths found among the 219 deaths reported from nonregistration districts.

In Table 3 the total number of deaths is given exclusive of stillbirths in accordance with the usual custom in registration offices. As it has been the practice in the Michigan reports up to the present time to include stillbirths in the total deaths, they are so included in the present report, although in all of the tables the number of stillbirths is given in connection with the total, so that it can conveniently be subtracted and the total number of deaths, exclusive of stillbirths, readily be found for comparison with the corresponding figures of other States and countries. It will probably soon be desirable, in accordance with the Bertillon classification, which has now come into general use, to distinctly exclude stillbirths from deaths, making a separate class of them, under which, as with deaths, the causes leading to them may properly be considered. There is only one reason which might seem to render their retention among deaths somewhat desirable, and that is the fact that by so including them, especially in the *Monthly Bulletins*, which show the number of deaths returned from each township, vil-

lage and city in the State, there is caused a somewhat more accurate registration of this class of deaths than would otherwise be obtained. In point of fact Michigan is considerably in advance of some European countries in this respect, especially England, and it would be a misfortune if, for theoretical considerations relating to classification, there should result less accurate registration of this important element of vital statistics.

In Table 2, Part I, the total death rate of the year, 14.0 per thousand population, may be compared with the death rate of the preceding year and also with the very imperfect rates obtained under the old registration law for the years 1868-97, inclusive. It should be understood that the increase in the death rates for the years 1897-98 does not correspond to any increased mortality for the State; in fact, it is believed that the year 1898 was a year of very exceptionally low mortality, and that if the rates for the preceding years could be accurately known there would probably be some decrease in passing from 1897 to 1898, rather than the apparent increase shown in the table. The year 1899 can therefore only be directly compared with the preceding year. The death rate for 1899, 14.0 per thousand population, including stillbirths, represents a slight increase over 1898, which had a rate of 12.4 per thousand population, inclusive of stillbirths. Both of these rates are very low as compared with the usually accepted standards of registration States and cities.

In Table 3, the rates are given for the returns of births and deaths, exclusive of stillbirths. The rates for the years 1899 and 1898 are 13.4 and 11.8 per thousand population, respectively. It is, of course, understood in this table, as in the preceding one, that the rates for these two years alone are directly comparable, since the rates for the preceding years of registration under the old law are too imperfect to show the true relations of the mortality.

While the death rates given for the years of registration prior to 1898, in Tables 2 and 3, Part I, are far too low to show the correct mortality of the State during the period of time covered, nevertheless, it is probable that the variations in mortality are for the most part correctly indicated. Since the method of enumeration remained uniform during the earlier period from 1867-97, there would seem to be no reason to doubt that the general degree of accuracy of the returns remained about the same, and hence that the variations in the true mortality of the State during that time are correctly indicated, although on a somewhat reduced scale.

It will be observed in Table 2 that the usual figures showing the difference between the number of births and number of deaths returned for the year, and also the corresponding rates of natural increase based on these figures, are omitted. This is for the reason that, while the registration law has been greatly improved in accuracy during the past two years so far as it regards the collection of deaths, the collection of births remains still under the old and greatly imperfect system of returns by supervisors. While both sets of statistics were returned by the same method and shared approximately the same degree of imperfections, the difference could be taken, with some qualifications, as representing the approximate amount of natural increase, but now that

the returns of deaths have improved in accuracy, the difference between births and deaths would be far too small to represent the natural increase of the State, and hence has been entirely omitted. This is one of the reasons, apart from the very important ratios used for the study of infant mortality based upon the accurate registration of births, why it is very necessary that the State of Michigan should place the registration of births on a par with the other vital statistics now collected, in point of completeness.

In Table 6, Part I, the death rate of Michigan for the year 1899 may be compared with those of other States and foreign countries for the same year, and also the series of death rates for Michigan from 1885-1899 may be compared, with considerable qualification, with the others there given. It should be remembered that up to the year 1898 the death rates in Michigan are only approximate, and that they must not be compared directly with those of other States and countries having more accurate registration. The variations, however, from year to year may, and frequently do, correspond in their general direction with those shown by more perfect statistics.

The figures given in Table 6 are also diagrammatically shown in Diagram II, page xxvi. In the lower part of this diagram, showing the variations in death rates in the different countries and States given, it will be noticed that the Michigan statistics, shown by the double line, are now beginning to rise so that they become fairly comparable with those of other States and countries. Prior to 1898 they remained with considerable uniformity below 10 per thousand population, which was, of course, absurd. The true death rates probably ranged from 14 to 17 per thousand, somewhat lower than those shown for Connecticut.

The distribution of deaths through the several counties of the State is shown, in connection with other classes of vital statistics, in Table 7, Part I, and death rates are there given based upon the estimated population for each county. It should be remembered that in rapidly growing counties, and especially in those which have increased greatly in population during the years since the census, (1894) upon which the estimated populations given in this report are based, that the rates are not as satisfactory as they would be if based upon a more recent census. Also, in comparing the death rates of the several counties, due attention should be given to the differences in age and sex distribution, which greatly affect rates of mortality.

In Table 8 comparison may be made directly of the deaths returned from each county in the State for the two years, 1899 and 1898, showing in most cases an increased number of deaths returned for the latter year.

Having thus referred to the tables relating to deaths contained in Part I of this report, it may be well to state that all of the data in those tables, as well as all of that in this part of the report, so far as it relates to the mortality of the year 1899, is derived directly from the primary tables relating to deaths and the causes of deaths, as printed on pages 1 to 102, which general reference to the source of the statistics employed in the following pages will be sufficient.

As in previous reports, this portion is divided into two sections, viz., Section I, The Incidence of Deaths, by months, sex, age, geographical

location, etc., and Section II, The Causes of Death. It should not be understood that the second division fails to study the factors mentioned in the preceding group, but its distinctive feature is that it classifies them with reference to particular diseases, instead of simply showing their relation to total mortality.

SECTION I.—INCIDENCE OF DEATHS IN MICHIGAN DURING THE YEAR 1899.

The tables in this section contain statements in regard to the incidence of deaths in the State during the year 1899, arranged to show the following particulars: (1) Deaths from all causes by months; (2) number and proportion of each sex among the decedents; (3) deaths by ages of decedents; (4) geographical distribution of deaths; and (5) location as urban and rural. Herewith is presented a brief statement of the more prominent facts contained in this section:

Following are some of the most important facts relative to the occurrence of deaths from all causes during the year 1899:

Total number of deaths returned, 1899.....	33,894
Death rate per 1,000 estimated population, 1899.....	14.0
Deaths reported under new law, 1899.....	33,675
Death rate per 1,000 estimated reporting population, 1899.....	14.1

The latter figures relative to deaths returned by registrars under the law of 1897 are used as the basis of the discussions in this report unless otherwise stated. For statement of deaths returned from non-registration districts under the old law, see page 102. Following the practice obtaining for many years in these reports, stillbirths are included in the total deaths returned, and must be deducted for comparisons with most other states and countries:

Stillbirths registered, 1899.....	1,386
Stillbirth rate per 1,000 estimated population, 1899.....	0.6

As to the monthly incidence of deaths, we have:

More than average mortality, 1899.....	January, February, March, April
Less than average mortality, 1899.....	May to December, inclusive
Maximum mortality, 1899.....	February, 3,828 deaths or 20.9 per 1,000
Minimum mortality, 1899.....	June, 2,242 deaths or 11.5 per 1,000

By sex, there were:

Males dying in Michigan, 1899.....	18,025 or 14.5 per 1,000 male inhabitants
Females dying in Michigan, 1899.....	15,605 or 13.2 per 1,000 female inhabitants
Ratio of death rate of males to death rate of females, 1899.....	110 per cent

By age periods there were, inclusive of stillbirths, deaths as follows:

Under 1 year of age.....	6,351 or 18.9 per cent
Under 5 years of age.....	8,848 or 26.3 per cent
Aged 5 to 14 years.....	1,504 or 4.5 per cent
Aged 15 to 64 years.....	12,495 or 37.1 per cent
Aged 65 years and over.....	9,358 or 27.8 per cent

By geographical sections, we have the following:

Deaths in the Upper Peninsula.....	3,322 or 15.3 per 1,000 estimated population
Northern counties.....	3,580 or 13.0 per 1,000 estimated population
Central counties.....	5,793 or 12.7 per 1,000 estimated population
Southern counties.....	20,980 or 14.6 per 1,000 estimated population

Distinguished as urban and rural there were the following:

Deaths in cities.....14,067 or 41.8 per cent; death rate 15.3 per 1,000
Deaths in country.....19,588 or 58.2 per cent; death rate 13.5 per 1,000

DEATHS BY MONTHS AND QUARTERS, 1899.

Table 9 shows the distribution of deaths in Michigan according to the months and quarters of the year 1899. The first quarter, or rather the first four months of the year, greatly exceed the average in mortality, owing to the extreme prevalence of influenza. Had these months not shown a greatly increased death rate, the total number of deaths for the year would probably not have varied greatly from that shown for 1898.

The largest number of deaths registered in any single month was for February, which, although the shortest month in the year, had 3,828 deaths returned, corresponding to a death rate of 20.9 per thousand population. The month of least mortality was June, with only 2,242 deaths recorded, equivalent to a rate of 11.5 per thousand population. The average number of deaths per month was 2,806.

Table 9.—Deaths in Michigan, by months and quarters, 1899. (Stillbirths included.)

Year and months.	Number of deaths.		Average number per day.	Rank.	Death rate per 1,000 population.	Death rates as originally printed in <i>Bulletins</i> .	Increase for delayed returns.
	By months.	By quarters.					
Year, 1899.....	33,675	33,675		1,200	14.1	14.1	
January.....	3,269	10,451	105.5	114	16.2	16.2	
February.....	3,828		136.7	148	20.9	20.7	0.2
March.....	3,354		108.2	117	16.6	16.5	0.1
April.....	3,054	7,890	101.8	110	15.6	15.6	
May.....	2,594		83.7	91	12.8	12.9	—0.1
June.....	2,242		74.7	81	11.5	11.5	
July.....	2,439	7,980	78.7	85	12.1	12.1	
August.....	2,788		89.9	97	13.8	13.8	
September.....	2,753		91.8	99	14.1	14.1	
October.....	2,479	7,354	80.0	87	12.3	12.1	0.2
November.....	2,366		78.9	85	12.1	12.2	—0.1
December.....	2,509		80.9	88	12.4	12.3	0.1
Average.....	2,806	8,419	92.3	100			

For convenience of comparison in studying the comparative mortality by months, it is useful to use the scale on which the average number of deaths per month is taken as 100. Employing this method, the months stand in the following order: The maximum being February, 148; March, 117; January, 114; April, 110; September, 99; August, 97; May, 91; December, 88; October, 87; July and November, 85; and June, the minimum, 81. An interesting feature is shown in this table, viz., the comparison of the death rates of the months, as based on the final compilation of returns after all delinquent districts have reported, with the original rates as printed in the *Monthly Bulletins*.

Table 10.—Delayed returns of deaths by months, 1899. (Stillbirths included.)

Deaths returned and published in—	Total deaths, 1899.	Months of death, 1899.											
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Annual Registration Report.....	33,675	3,269	3,828	3,354	3,054	2,594	2,242	2,439	2,788	2,763	2,479	2,366	2,509
Monthly Bulletins....	33,150	3,241	3,778	3,278	2,965	2,560	2,204	2,399	2,755	2,733	2,428	2,350	2,459
Delayed returns.....	525	28	50	76	89	34	38	40	33	20	51	16	50
Per cent.....	1.6	0.9	1.3	2.3	3.0	1.3	1.7	1.6	1.2	0.7	2.1	0.7	2.0

By referring to Table 10, it will be seen that the total number of deaths for the year recorded in the *Monthly Bulletins*, 33,150, was 525 less than the total number of deaths, 33,675, returned ultimately, as compiled in this registration report. Nevertheless, in the considerable increase in the final report as compared with the original prompt returns, there is no variation whatever in the death rate for the year, 14.1 per thousand, nor is there any variation whatever in six out of the twelve months given. In four months there is a variation, positive or negative, of 0.1 per thousand population, and in two months, February and October, there is a variation of 0.2 per thousand. The original death rates for all causes as published in the *Monthly Bulletins of Vital Statistics* for the year 1899, were thus practically absolutely accurate and need suffer no revision whatever from the receipt of delayed returns.

Table 11.—Deaths and death rates in Michigan by sex, 1890-99. (Stillbirths included.)

Year.	Population.		Number of deaths.		Rates per 1,000.		Deaths of males to 100 deaths of females.	Relative male mortality.†
	Males.	Females.	Males.	Females.	Males.	Females.		
1890.....	1,091,780	1,002,109	11,801	9,771	10.8	9.8	120.7	110
1891.....	1,108,970	1,021,857	11,908	9,908	10.7	9.8	119.1	109
1892.....	1,126,160	1,041,605	11,837	9,809	10.5	9.4	120.7	112
1893.....	1,143,350	1,061,353	11,772	10,142	10.3	9.6	116.1	107
1894*.....	1,160,540	1,081,101	11,159	9,744	9.6	9.0	114.5	107
1895.....	1,177,730	1,100,849	12,161	10,510	10.3	9.5	115.7	108
1896.....	1,194,920	1,120,597	11,807	10,119	9.9	9.0	116.7	110
1897.....	1,212,110	1,140,345	10,294	8,827	8.5	7.7	116.6	110
1898.....	1,229,300	1,160,093	15,024	13,809	12.7	11.9	113.1	107
1899.....	1,246,490	1,179,841	18,025	15,605	14.5	13.2	115.5	110
Average, 1890-99.....	1,169,135	1,090,975	12,639	10,834	10.8	9.9	116.7	109

* Census years.

† Ratio of death rates (not deaths) of males to death rates of females. This comparison eliminates the unequal distribution of the sexes in the population.

VITAL STATISTICS OF MICHIGAN, 1899

MORTALITY OF THE SEXES IN MICHIGAN, 1899.

The distribution of deaths by sex during the year 1899 is shown in Table 11, together with a comparison with the estimated population of each sex, and also of the results of the preceding years, 1890-98, with the ten-year average, 1890-99.

Table 12.—Deaths in Michigan, by sex and age periods, 1899. (Stillbirths included.)

Ages in years and periods of years.	Number of deaths, 1899.				Per cent of deaths at each age to total at all ages.			Per cent of deaths of each sex to total of both sexes.†				Excess of the sexes by number.		Males to 100 females.
	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Males.	Females.	Excess.		Males.	Females.	
										Males.	Females.			
All ages.....	33,675	18,025	15,605	45	100.0	100.0	100.0	53.5	46.3	7.2		2,420		116
Stillbirths.....	1,386	785	562	30	4.1	4.4	3.6	58.3	41.7	16.6		223		140
Under 1 year *.....	6,351	3,628	2,717	6	18.9	20.1	17.4	57.2	42.8	14.4		911		134
1 year.....	1,222	676	546		3.6	3.8	3.5	55.3	44.7	10.6		130		124
2 years.....	611	353	258		1.8	2.0	1.7	57.8	42.2	15.6		95		137
3 years.....	392	192	200		1.2	1.1	1.3	49.0	51.0		2.0		8	96
4 years.....	272	133	139		0.8	0.7	0.9	48.9	51.1		2.2		6	96
Under 5 years *.....	8,848	4,982	3,860	6	26.3	27.6	24.7	56.3	43.7	12.6		1,122		129
5 to 9.....	846	438	408		2.5	2.4	2.6	51.8	48.2	3.6		30		107
10 to 14.....	658	347	311		2.0	1.9	2.0	52.7	47.3	5.4		36		112
15 to 19.....	1,030	534	496		3.1	3.0	3.2	51.8	48.2	3.6		38		108
20 to 24.....	1,313	624	689		3.9	3.5	5.1	47.5	52.5		5.0		65	91
25 to 29.....	1,206	525	681		3.6	2.9	4.4	43.5	56.5		13.0		156	77
30 to 34.....	1,079	465	614		3.2	2.6	3.9	43.1	56.9		13.8		149	76
35 to 39.....	1,152	569	583		3.4	3.2	3.7	49.4	50.6		1.2		14	98
40 to 44.....	1,145	558	587		3.4	3.1	3.8	48.8	51.3		2.5		29	95
45 to 49.....	1,141	646	495		3.4	3.6	2.1	56.6	43.4	13.2		151		131
50 to 54.....	1,223	668	555		3.6	3.7	3.6	54.6	45.4	9.2		113		120
55 to 59.....	1,513	842	671		4.5	4.7	4.3	55.7	44.3	11.4		171		125
60 to 64.....	1,693	908	785		5.0	5.0	5.0	53.6	46.4	7.2		123		116
65 to 69.....	2,079	1,115	964		6.2	6.2	6.2	53.6	46.4	7.2		151		116
70 to 74.....	2,272	1,267	1,005		6.7	7.0	6.4	55.8	40.3	15.5		262		126
75 to 79.....	2,155	1,220	935		6.4	6.8	6.0	56.6	43.4	13.2		285		130
80 and over.....	2,852	1,470	1,382		8.5	8.2	8.9	51.5	48.5	3.0		88		106
Unknown ages.....	84	62	22		0.2	0.3	0.1	73.8	26.2	47.6		40		282

* Excluding stillbirths.

† Unknown sex excluded.

Including stillbirths, there were 18,025 male decedents and 15,605 female decedents during the year. The respective death rates were 14.5 and 13.2 per thousand population. These death rates are strictly comparable only with those of the preceding year, as the previous years, 1890-97, were collected under the very imperfect law that was then in effect. However, the relative number of males per one hundred deaths of females for the year, 115.5, is fully comparable with the corresponding ratios for the preceding years, and the relative male mortality shown in the last column of the table, 110 per cent, which is the ratio of the death rates of males to the death rates of the females taken as 100 per cent, is also correctly shown.

As usual, the male mortality is somewhat in excess of the female mortality, this being due in some degree to the inclusion of stillbirths in the returns, as there are always more males than females among stillbirths. For this reason more satisfactory comparisons can be made, and especially with reference to the very important item of age distribution by sexes, in Table 13.

DEATHS BY SEXES AND AGE PERIODS, 1899.

Table 12 shows the general distribution of the deaths returned for the year 1899, distinguishing the sexes and age periods of the decedents. This table includes stillbirths in the general total, although they are excluded in the total under one year and in the total under five years. The relations of the number of deaths at each year under five and at quinquennial age periods up to the age of eighty years are given. Exclusive of stillbirths, 18.9 per cent of the deaths returned for the year were under one year of age. Stillbirths amounted to 4.1 per cent, and should be added to the preceding percentage for comparison with some former reports.

Under five years of age the percentage of deaths, exclusive of stillbirths, was 26.3. In other words, over one-fourth of the total deaths recorded for the year were those of children under five years of age. For males the percentage was somewhat higher and for females somewhat lower.

Comparisons of the percentage of deaths of males and females to the total number of deaths, exclusive of unknown sex, show that for most periods of age the percentage of males is the larger. Exceptions are for the years three to four and twenty to twenty-four, the latter corresponding to the child-bearing age of females, during which the number of deaths recorded is greater than those of males. The percentage relations of male deaths to female deaths are also indicated in this table, but in common with the other figures given, the statements are not entirely satisfactory for some uses, owing to the fact that stillbirths are included and that the number of deaths and the percentage relations of the sexes are affected largely by the distribution of the population from which the deaths are derived.

VITAL STATISTICS OF MICHIGAN, 1899

Table 13.—Deaths and death rates in Michigan, by age periods and sex, 1899. (Stillbirths excluded.)

Ages.	Estimated population, 1899.			Deaths, 1899.				Death rates per 1,000 population of same age and sex, 1899.			Relative male mortality.†
	Total.	Males.	Females.	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	
All ages.....	2,426,331	1,246,489	1,179,842	*32,289	17,240	15,043	6	13.3	13.8	12.8	108
Under 1 year.....	63,752	32,368	31,384	6,351	3,628	2,717	6	99.6	112.1	86.6	129
1 year.....	64,779	33,194	31,585	1,222	676	546	.....	18.9	20.4	17.3	118
2 years.....	55,654	28,882	26,772	611	353	258	.....	11.0	12.2	9.6	127
3 years.....	55,086	27,799	27,287	392	192	200	.....	7.1	6.9	7.3	95
4 years.....	57,710	29,906	27,804	272	133	139	.....	4.7	4.4	5.0	88
Under 5 years....	296,981	152,149	144,832	8,848	4,982	3,860	6	29.8	32.7	26.7	122
5 to 9 years.....	263,140	132,981	130,159	846	438	408	.....	3.2	3.3	3.1	106
10 to 14 years.....	241,219	122,432	118,787	658	347	311	.....	2.7	2.8	2.6	108
15 to 19 years.....	239,843	120,009	119,834	1,030	534	496	.....	4.3	4.4	4.1	107
20 to 24 years.....	215,893	105,735	110,158	1,313	624	689	.....	6.1	5.9	6.3	94
25 to 29 years.....	197,689	98,573	99,116	1,206	525	681	.....	6.1	5.3	6.9	77
30 to 34 years.....	177,967	91,686	86,281	1,079	465	614	.....	6.1	5.1	7.1	72
35 to 39 years.....	174,931	92,201	82,730	1,152	569	583	.....	6.6	6.2	7.0	89
40 to 44 years.....	138,619	75,115	63,504	1,145	558	587	.....	8.3	7.4	9.2	80
45 to 49 years.....	117,191	63,450	53,741	1,141	646	495	.....	9.7	10.2	9.2	111
50 to 54 years.....	108,828	57,145	51,683	1,223	668	555	.....	11.2	11.7	10.7	109
55 to 59 years.....	75,572	39,156	36,416	1,513	842	671	.....	20.0	21.5	18.4	117
60 to 64 years.....	67,121	36,033	31,088	1,693	908	785	.....	25.2	25.2	25.3	100
65 to 69 years.....	46,296	24,595	21,701	2,079	1,115	964	.....	44.9	45.3	44.4	102
70 to 74 years.....	33,347	18,405	14,942	2,272	1,267	1,005	.....	68.1	68.8	67.3	102
75 to 79 years.....	19,430	10,436	8,994	2,155	1,220	935	.....	110.9	116.9	104.0	112
80 years and over..	12,274	6,399	5,875	2,852	1,470	1,382	.....	232.4	229.7	235.2	98
Unknown.....	.....	.....	.....	84	62	22	.....	.....	.....	.....	.....

* Not including 219 deaths from nonregistration districts.

† Ratio of *death rates* of males to death rates of females.

In order to obviate some of these difficulties and to obtain a more satisfactory statement of the mortality of the sexes by ages, Table 13 has been prepared. This table shows the estimated population for each sex and age, as based on the comparison of the State census of 1894, with the United States census of 1890. Of course, in estimating for the year 1899, five years later than the date of the last census, some allowance must be made for the difficulty of correctly estimating populations remote from the census. The present table is therefore given as subject to revision, as soon as the detailed results of the United States census of 1900 are available for use.

The total death rate for both sexes, 13.3 per thousand population, is based on the total estimated population of the State for the year, although the deaths considered in this table do not include the 219 deaths from nonregistration districts included in Table 2. Hence this rate does not compare exactly with the rates there given, and is used solely for the purpose of the present table in comparison with the death rates of the sexes.

Considered with reference to the sex distribution of the population, the death rate of males for the year, 13.8 per thousand, as compared with the death rate of females for the year, 12.8 per thousand, represents a relative male mortality of 108 per cent.

Table 14.—Death rates and ratios of deaths at certain periods of age, 1870-99. (Still-births excluded from both births and deaths.)

Years and periods.	Death rates per 1,000 population of corresponding age.						Percentages of deaths at each age to total deaths at all ages.					Deaths of infants under 1 year of age per 1,000 living births.
	All ages.	Under 1 year.	Under 5 years.	5 to 14.	15 to 64.	65 and over.	Under 1 year.	Under 5 years.	5 to 14.	15 to 64.	65 and over.	
1870.....	8.9	74.4	26.5	3.5	5.4	37.0	23.5	42.1	9.6	36.6	11.6	91.3
1871.....	7.7	58.3	21.2	2.9	4.8	36.9	21.2	38.7	9.3	38.1	14.0	75.6
1872.....	10.3	88.7	30.9	4.0	6.3	38.1	23.9	41.6	9.3	37.2	11.9	110.9
1873.....	10.6	92.4	31.7	4.4	6.5	41.2	23.9	40.9	9.9	37.2	12.0	96.0
1874.....	8.8	79.5	25.7	3.0	5.6	38.0	24.6	39.6	8.1	38.7	13.7	94.8
1875.....	8.1	71.2	23.3	2.6	5.1	34.6	24.2	39.1	7.8	39.1	14.0	85.5
1876.....	8.2	72.0	23.5	3.0	5.0	37.9	23.7	38.3	8.5	37.8	15.4	82.8
1877.....	8.1	66.9	23.0	3.2	5.0	37.1	22.1	37.5	9.2	37.8	15.4	81.1
1878.....	7.7	59.7	21.2	3.4	4.6	36.0	20.6	35.8	10.0	38.0	16.0	70.5
1879.....	8.6	67.5	24.3	4.3	5.0	38.5	20.8	36.7	11.7	36.0	15.7	84.1
1880.....	9.4	75.7	27.4	4.6	5.4	39.9	21.5	37.9	11.3	35.7	15.2	93.5
1881.....	11.0	91.7	33.8	6.1	6.1	41.3	21.7	39.0	12.6	34.7	13.7	116.4
1882.....	9.0	73.3	26.1	4.7	5.3	36.8	20.9	36.3	11.9	36.3	15.4	88.7
1883.....	9.0	74.5	25.8	3.8	5.5	37.7	21.1	35.5	9.7	38.5	16.3	83.0
1884.....	9.4	89.5	28.7	3.8	5.5	39.2	23.7	37.4	9.2	36.9	16.5	101.2
1885.....	8.4	72.9	23.6	3.2	5.2	37.6	21.6	34.1	8.6	39.1	18.2	81.2
1886.....	9.0	83.2	27.2	3.3	5.4	38.7	22.8	36.4	8.3	37.5	17.9	96.1
1887.....	9.5	86.1	28.4	3.4	5.7	41.4	22.1	35.5	8.1	37.9	18.5	(97.2) 89.3
1888.....	10.2	97.0	30.8	3.3	6.2	44.9	23.0	35.4	7.2	36.3	19.1	(103.4) 97.2
1889.....	9.3	84.5	27.6	3.2	5.8	40.4	21.7	34.3	7.6	39.1	19.1	(91.1) 84.9
1890.....	9.7	84.0	27.2	3.8	6.1	41.9	20.6	32.4	8.6	39.7	19.4	(89.7) 80.8
1891.....	9.9	86.3	26.9	3.3	6.1	46.0	21.3	32.0	7.5	39.3	21.2	(93.7) 87.8
1892.....	9.6	78.3	25.1	3.2	5.9	47.0	20.2	31.0	7.4	39.3	22.4	90.5
1893.....	9.5	80.8	25.0	3.1	5.9	46.8	21.1	31.1	7.2	39.1	22.4	93.2
1894.....	8.9	75.3	22.8	2.6	5.7	43.5	21.2	30.6	6.4	40.8	22.3	95.9
1895.....	9.5	78.0	23.2	2.5	6.2	50.9	20.6	29.1	5.7	41.0	24.2	97.9
1896.....	9.0	69.6	21.8	2.6	5.7	46.2	20.0	29.5	6.3	40.4	23.7	91.0
1897.....	8.1	61.9	18.9	2.4	5.2	45.1	19.6	28.1	6.3	40.3	25.3	86.6
1898.....	11.8	88.6	26.0	2.6	7.5	74.0	19.6	26.8	4.6	39.8	28.8	.....
1899.....	13.3	99.6	29.8	3.0	8.3	84.0	19.6	27.5	4.7	38.8	29.1	.....
1870-74.....	9.3	78.7	27.2	3.6	5.7	38.2	23.4	40.6	9.2	37.6	12.6	93.7
1875-79.....	8.1	67.5	23.1	3.3	4.9	36.8	22.3	37.5	9.4	37.7	15.3	80.8
1880-84.....	9.6	80.7	28.4	4.6	5.6	39.0	21.8	37.2	10.0	36.4	15.4	96.6
1885-89.....	9.3	84.7	27.5	3.3	5.7	40.6	22.2	35.1	8.0	38.4	18.6	(91.8) 89.7
1890-94.....	9.5	80.9	25.4	3.2	5.9	45.0	20.9	31.4	7.4	39.6	21.5	(92.6) 89.6
1870-94.....	9.2	78.5	26.3	3.6	5.6	39.9	22.1	36.4	9.0	37.9	16.7	(91.5) 90.1

NOTE.—The numbers in parentheses in the last column represent the figures for infant mortality after correction, as far as possible, for fraudulent returns of births and deaths from Wayne county (Detroit) during the years 1887-91. See Report for 1892, p. 14. No comparison can be made of the deaths returned under the new law for 1898 and 1899 with the very imperfect returns of births.

Under one year of age, even after the exclusion of stillbirths, the relative male mortality is higher, being 129 per cent, and is the maximum for all ages, although that for the age period two years, 127 per cent, approaches it very closely. Above two years of age and under the age of twenty the male mortality also exceeds the female mortality, as is also the case for all years over forty-five, with the exception of the extremely aged, eighty years and over.

DEATH RATES AND PROPORTIONAL DEATHS BY AGE PERIODS, 1870-99.

In Table 14 the death rates per thousand population of corresponding ages are given for the year 1899 for certain important age periods and may be compared with the results of the preceding year and also with the years 1870-99, as obtained under the old registration law. As the results under the old law were not as accurate as at present, only the general relations of the mortality at definite ages may be compared, except for the last two years of registration, 1898-99. Considering these two years, we note that the death rate of infants under one year of age, per thousand estimated population of the same age, increased from 88.6 in 1898, to 99.6 in 1899. Unfortunately this ratio is a very unsatisfactory one from the fact that the census figures, upon which the estimate of the population at this period is based, are notoriously inaccurate. This is true of all censuses, so much so that it is the approved custom of statisticians to base their figures for infant mortality, not upon the population under one year of age, but upon the number of births in the same or in the preceding year. It is for this reason that it is very desirable to have an accurate registration of births, owing to the great sanitary importance of the correct statement of infant mortality. Michigan at present has no satisfactory law for this purpose, although it is hoped that efforts will soon be made in this direction. The last column given in this table showing the infant mortality as based on the returns of deaths of infants under one year of age and the very imperfect records of births as obtained under the old law for their enumeration by supervisors, is of very doubtful value. Since the registration of deaths, however, has greatly improved in accuracy, while the imperfections in the returns of births has remained unaltered, this important comparison has been made even more unsatisfactory than it formerly was, so that it is not worth while to attempt even to state the ratio between the deaths registered and the number of births enumerated for the year 1899.

Under five years of age, the death rate for 1899, 29.8 per thousand population, showed some increase over 1898, 26.0. So also did the rate for deaths of children aged from five to fourteen years, 2.6 to 3.0, and for adults, fifteen to sixty-four years of age, 7.5 to 8.3 per thousand. The death rate of the aged (sixty-five years and over) increased from 74.0 in 1898 to 84.0 in 1899. Thus, for all ages, there appears to be an increase for the latter year, which, however, was most noticeable at the extremes of life.

The second part of Table 14, showing the percentages of deaths at each age to the total deaths at all ages, has not the direct statistical value and importance of the preceding part, and is continued chiefly to show the general character of the returns for the year.

Somewhat over one-fourth of all deaths were those of children under five years of age, nearly one-fifth of the total number of deaths being those of infants under one year. Nearly 40 per cent of the deaths occurred during the extensive age period, fifteen to sixty-four, which includes the most active period of life. The proportion of deaths of the aged, those over sixty-five years of age, was much higher than the average for the years 1898 and 1899. This ratio has been steadily increasing from the earlier years of registration, when it was only about one-third of its present size. These changes are due largely to the change in the age constitution of the State and throw an important light on the variations in the general death rate.

It may be said that in the second part of this table the ratios are comparable for the entire table, and not, as in the case of the death rates for the two years of accurate registration only.

DEATHS AND DEATH RATES, BY GEOGRAPHICAL SECTIONS, 1899.

It was shown in the discussion of a preceding table (Table 9) that the monthly death rates, as printed in the *Michigan Monthly Bulletins of Vital Statistics* during the year 1899, were nearly absolutely correct, so far as the addition of delayed returns is concerned. As in the preceding report, so it seems desirable to present here for permanent preservation the tables showing the distribution of mortality through the State as recorded in these *Monthly Bulletins*, and hence Table 15 has been prepared for this purpose.

The geographical sections shown in this table were explained in the report for 1898 and illustrated by a map, and are the same that are referred to in the meteorological statistics given in subsequent pages of the present report.

The arrangement of cities according to population is based entirely upon the State census of 1894, although in the following table (Table 16) the arrangement according to the United States census of 1900 is given the preference.

In Table 15, besides the total death rates for the State, geographical sections and groups of cities, together with the townships and villages taken together under the designation "country," important ratios are given for the number of deaths returned of infants under one year of age, children aged one to four years, both inclusive, and elderly persons aged sixty-five years and over, for each month of the year. The table also shows the deaths returned and the death rates based thereon for certain of the most important diseases, including especially those dangerous communicable diseases that the State Board of Health is required by law to restrict.

VITAL STATISTICS OF MICHIGAN, 1899

Table 15.—Mortality in Michigan, by geographical sections and groups of cities,

Population by geographical sections and as urban and rural.	Total reporting population by State census of 1894.	Total deaths reported for 1899.	Annual death rates per 1,000 esti- mated popu- lation.	Still- births.	Important			
					Under 1.		1 to 4.	
					Num- ber.	Per cent.	Num- ber.	Per cent.
JANUARY	2,184,967	3,241	16.2	140	566	18.3	171	5.5
I.—UPPER PENINSULA.....	186,000	325	17.8	24	96	31.9	26	8.6
II.—NORTHERN COUNTIES.....	233,419	305	13.5	14	74	25.4	25	8.6
III.—CENTRAL COUNTIES.....	433,058	501	13.0	21	98	20.4	25	5.0
IV.—SOUTHERN COUNTIES.....	1,332,490	2,110	17.4	81	298	14.7	95	4.7
ALL CITIES	839,936	1,384	17.1	98	259	20.1	78	6.1
Over 50,000.....	317,236	569	17.6	41	94	17.8	42	8.0
25,000 to 50,000.....	74,685	91	14.3	7	15	17.9	5	6.0
10,000 to 25,000.....	197,039	320	17.5	28	71	24.3	14	4.8
5,000 to 10,000.....	148,839	243	16.9	14	48	21.0	9	3.9
Under 5,000.....	102,137	161	16.9	8	31	20.3	8	5.2
COUNTRY	1,345,031	1,857	15.5	42	307	17.0	93	5.1
FEBRUARY	2,189,211	3,778	20.7	127	727	19.9	212	5.8
I.—UPPER PENINSULA.....	186,046	274	16.5	14	80	30.7	29	11.2
II.—NORTHERN COUNTIES.....	233,136	368	18.0	19	106	30.4	25	7.2
III.—CENTRAL COUNTIES.....	430,506	685	19.8	17	149	22.3	42	6.3
IV.—SOUTHERN COUNTIES.....	1,339,523	2,451	22.2	77	392	16.5	116	4.9
ALL CITIES	839,936	1,381	18.8	81	275	21.2	89	6.8
Over 50,000.....	317,236	550	19.0	41	118	22.8	40	7.7
25,000 to 50,000.....	74,685	86	14.8	4	17	20.7	4	4.9
10,000 to 25,000.....	197,039	317	19.1	19	67	22.5	22	7.4
5,000 to 10,000.....	148,839	227	17.4	11	34	15.7	13	6.0
Under 5,000.....	102,137	192	22.2	6	39	21.0	10	5.4
COUNTRY	1,349,275	2,397	22.0	46	452	19.2	123	5.2
MARCH	2,168,548	3,278	16.5	138	623	19.8	244	7.8
I.—UPPER PENINSULA.....	184,201	299	16.6	20	65	23.3	36	12.9
II.—NORTHERN COUNTIES.....	227,894	326	14.8	11	77	24.4	37	11.7
III.—CENTRAL COUNTIES.....	428,381	584	15.4	28	133	23.9	40	7.2
IV.—SOUTHERN COUNTIES.....	1,328,072	2,069	17.2	79	348	17.5	131	6.6
ALL CITIES	839,936	1,315	16.3	86	269	21.9	112	9.1
Over 50,000.....	317,236	564	17.5	40	126	24.0	52	9.9
25,000 to 50,000.....	74,685	91	14.3	9	23	28.0	9	11.0
10,000 to 25,000.....	197,039	287	15.7	14	51	18.7	22	8.1
5,000 to 10,000.....	148,839	238	16.5	18	43	19.5	18	8.2
Under 5,000.....	102,137	135	14.2	5	26	20.0	11	8.5
COUNTRY	1,328,612	1,963	16.6	52	354	18.5	132	6.9
APRIL	2,144,643	2,965	15.6	126	486	17.1	211	7.4
I.—UPPER PENINSULA.....	184,152	322	18.4	20	86	28.5	38	12.6
II.—NORTHERN COUNTIES.....	220,166	299	14.5	12	53	18.5	30	10.5
III.—CENTRAL COUNTIES.....	424,963	508	13.9	25	99	20.5	28	5.8
IV.—SOUTHERN COUNTIES.....	1,315,422	1,836	15.9	69	248	14.0	115	6.5
ALL CITIES	839,936	1,240	15.3	76	195	16.8	90	7.7
Over 50,000.....	317,236	522	16.2	40	84	17.4	48	10.0
25,000 to 50,000.....	74,685	80	12.5	6	18	24.3	5	6.8
10,000 to 25,000.....	197,039	254	13.9	15	31	13.0	14	5.9
5,000 to 10,000.....	148,839	243	16.9	11	40	17.2	15	6.5
Under 5,000.....	102,137	141	14.8	4	22	16.1	8	5.8
COUNTRY	1,304,707	1,725	15.8	50	291	17.4	121	7.2

as originally published in the Michigan Monthly Bulletin of Vital Statistics, 1899.

ages.

Deaths and annual death rates per 100,000 population from important causes.

65 and over.		Consumption.		Other tuberculosis.		Typhoid fever.		Diphtheria.		Croup.	
Num- ber.	Per cent.	Num- ber.	Death rate.	Num- ber.	Death rate.	Num- ber.	Death rate.	Num- ber.	Death rate.	Num- ber.	Death rate.
1,039	33.5	159	79.4	60	29.9	29	14.5	26	13.0	16	8.0
38	12.6	18	98.7	13	71.3	3	16.5	4	21.9	1	5.5
64	22.0	12	53.1	6	26.6	3	13.3	6	28.6	1	4.4
135	28.1	30	78.1	9	23.4	4	10.4	2	5.2	1	2.6
802	39.5	99	81.8	32	26.4	19	15.7	14	11.6	13	10.7
349	27.1	80	98.9	27	33.4	15	18.5	16	19.8	8	9.9
126	23.9	34	106.3	12	37.2	9	27.9	9	27.9	5	15.5
18	21.4	6	94.0	1	15.7	2	31.3	1	15.7		
73	25.0	15	82.1	7	38.3	1	5.5	4	21.9	1	5.5
71	31.0	18	125.0	5	34.7	3	20.8	1	6.9	2	13.9
61	39.9	7	73.6	2	21.0			1	10.6		
690	38.0	79	66.1	33	27.6	14	11.7	10	8.4	8	6.7
1,303	35.7	190	107.5	55	30.2	28	15.4	25	13.7	19	0.4
38	14.6	13	78.5	7	42.3	3	18.1	4	24.2	1	6.0
74	21.2	16	78.1	3	14.6	1	4.9	5	24.4	4	19.5
211	31.6	33	96.2	13	37.5	10	28.9	1	2.9	2	5.8
980	41.3	134	121.4	32	29.0	14	12.7	15	13.6	12	10.9
363	27.9	78	106.3	32	43.6	15	20.4	13	17.7	10	13.6
109	21.0	36	122.8	9	30.7	7	23.9	7	23.9	8	27.3
27	32.9	3	51.8	2	34.5	4	69.0	1	17.3		
91	30.5	21	126.6	12	72.3	1	6.0	3	18.1	1	6.0
66	30.6	12	91.8	7	63.6	1	7.7	1	7.7	1	7.7
70	37.6	6	69.5	2	23.2	2	23.2	1	11.6		
940	40.0	118	108.3	23	21.1	13	11.9	12	11.0	9	8.3
930	29.6	202	101.6	70	35.2	34	17.1	18	9.1	8	4.0
29	10.4	24	132.0	10	55.4	8	44.3	2	11.1		
59	18.7	14	63.5	5	22.7	4	18.1	3	13.6	1	4.5
173	31.1	35	92.1	6	15.8	12	31.6	2	5.3	1	2.6
669	33.6	129	107.0	49	40.6	10	8.3	11	9.1	6	5.0
267	21.7	82	101.4	40	49.5	20	24.7	11	13.6	7	8.7
103	19.7	36	111.5	21	65.0	3	9.3	6	18.6	5	15.5
21	25.6	6	94.0	1	15.7	4	62.6	1	15.7		
61	22.3	18	98.5	9	49.3	8	43.8	2	10.9	2	10.9
41	18.6	13	90.3	5	34.7	4	27.8	2	13.9		
41	31.5	9	94.6	4	42.1	1	10.5				
663	34.7	120	101.7	30	25.4	14	11.9	7	5.9	1	0.8
814	28.7	174	91.4	56	29.4	36	18.9	15	7.9	8	4.2
28	9.3	20	114.6	5	28.6	12	68.7			2	11.5
61	21.3	15	72.8	7	34.0	4	19.4			2	9.7
116	24.0	28	76.8	11	30.2	7	19.2	1	2.7		
609	34.5	111	96.0	33	28.5	13	11.2	14	12.1	4	3.5
285	24.5	81	100.2	22	27.2	17	21.0	11	13.6	3	3.7
106	22.0	34	105.3	9	27.9	2	6.2	7	21.7	1	3.1
19	25.7	6	94.0	2	31.3			1	15.7		
69	28.9	12	65.7	5	27.4	12	65.7	1	5.5	1	5.5
51	22.0	24	166.7	4	166.7	1	6.9				
40	29.2	5	52.6	2	21.0	2	21.0	2	21.0	1	10.5
529	31.6	83	85.0	34	31.1	19	17.4	4	3.7	5	4.6

VITAL STATISTICS OF MICHIGAN, 1899

Table 15.—Continued.—Mortality in Michigan, by geographical sections and groups of

Population by geographical sections and as urban and rural.	Total reporting population by State census of 1894.	Total deaths reported for 1899.	Annual death rates per 1,000 esti- mated popu- lation.	Still- births.	Important			
					Under 1.		1 to 4.	
					Num- ber.	Per cent.	Num- ber.	Per cent.
SEPTEMBER.....	2,191,926	2,733	14.1	97	683	25.9	248	9.4
I.—UPPER PENINSULA.....	186,267	325	18.4	19	116	37.9	39	12.7
II.—NORTHERN COUNTIES.....	235,694	324	14.7	12	113	36.2	33	10.6
III.—CENTRAL COUNTIES.....	432,738	496	13.4	14	128	26.6	44	9.1
IV.—SOUTHERN COUNTIES.....	1,337,317	1,588	13.5	52	326	21.2	132	8.6
ALL CITIES.....	839,936	1,096	14.0	64	283	27.4	92	8.9
Over 50,000.....	317,236	419	13.4	33	112	29.0	43	11.1
25,000 to 50,000.....	74,685	60	11.2	2	15	22.4	3	4.5
10,000 to 25,000.....	197,039	260	14.7	20	62	25.8	20	8.3
5,000 to 10,000.....	148,839	220	15.8	7	61	28.6	19	8.9
Under 5,000.....	102,137	128	13.9	2	33	26.2	7	5.6
COUNTRY.....	1,351,990	1,637	14.1	33	400	24.9	156	9.7
OCTOBER.....	2,182,349	2,428	12.1	121	381	16.5	165	7.2
I.—UPPER PENINSULA.....	187,638	212	11.5	18	50	30.4	16	8.2
II.—NORTHERN COUNTIES.....	229,332	251	11.3	10	47	19.5	21	8.7
III.—CENTRAL COUNTIES.....	431,624	397	10.4	20	51	13.5	31	8.2
IV.—SOUTHERN COUNTIES.....	1,333,755	1,568	12.9	73	224	15.0	97	6.5
ALL CITIES.....	839,936	1,036	12.8	69	188	19.4	75	7.8
Over 50,000.....	317,236	441	13.7	39	104	25.9	42	10.4
25,000 to 50,000.....	74,685	58	9.1	2	5	8.9	6	10.7
10,000 to 25,000.....	197,039	229	12.5	14	34	15.8	9	4.2
5,000 to 10,000.....	148,839	188	13.1	10	29	16.3	13	7.3
Under 5,000.....	102,137	120	12.6	4	16	13.8	5	4.3
COUNTRY.....	1,342,413	1,392	11.7	52	193	14.4	90	6.7
NOVEMBER.....	2,174,663	2,350	12.2	119	345	15.5	171	7.7
I.—UPPER PENINSULA.....	188,567	190	10.6	17	44	25.4	20	11.6
II.—NORTHERN COUNTIES.....	222,286	239	11.5	13	43	19.0	20	8.8
III.—CENTRAL COUNTIES.....	428,628	403	11.0	16	53	13.7	28	7.2
IV.—SOUTHERN COUNTIES.....	1,335,182	1,518	12.9	73	205	14.2	103	7.1
ALL CITIES.....	839,936	1,062	13.6	83	200	20.4	94	9.6
Over 50,000.....	317,236	460	14.7	41	112	26.7	54	12.9
25,000 to 50,000.....	74,685	84	13.6	8	15	19.7	1	1.3
10,000 to 25,000.....	197,039	241	13.6	16	31	13.8	18	8.0
5,000 to 10,000.....	148,839	174	12.5	13	29	18.0	10	6.2
Under 5,000.....	102,137	103	11.2	5	13	13.3	11	11.2
COUNTRY.....	1,334,727	1,288	11.2	36	145	11.6	77	6.2
DECEMBER.....	2,178,991	2,459	12.3	124	348	14.9	194	8.3
I.—UPPER PENINSULA.....	185,059	233	12.8	22	57	27.0	29	13.7
II.—NORTHERN COUNTIES.....	220,778	244	11.0	6	48	20.2	26	10.9
III.—CENTRAL COUNTIES.....	427,568	386	10.2	20	46	12.6	22	6.0
IV.—SOUTHERN COUNTIES.....	1,336,586	1,596	13.2	76	197	13.0	117	7.7
ALL CITIES.....	839,936	1,061	13.4	71	165	16.3	89	9.8
Over 50,000.....	317,236	468	14.5	42	79	18.5	60	14.1
25,000 to 50,000.....	74,685	67	10.5	5	10	16.1	5	8.1
10,000 to 25,000.....	197,039	222	12.1	15	39	18.8	15	7.2
5,000 to 10,000.....	148,839	197	13.7	6	26	13.6	11	6.8
Under 5,000.....	102,137	127	13.4	3	11	8.9	8	6.5
COUNTRY.....	1,339,055	1,378	11.6	53	183	13.8	95	7.2

DEATHS

lv

cities, as originally published in the Michigan Monthly Bulletin of Vital Statistics, 1899.

ages.		Deaths and annual death rates per 100,000 population from important causes.									
65 and over.		Consumption.		Other tuberculosis.		Typhoid fever.		Diphtheria.		Croup.	
Num- ber.	Per cent.	Num- ber.	Death rate.	Num- ber.	Death rate.	Num- ber.	Death rate.	Num- ber.	Death rate.	Num- ber.	Death rate.
660	25.0	136	69.4	55	28.3	72	37.0	20	10.3	12	6.2
24	7.8	15	84.9	6	34.0	11	62.3	2	11.3	1	4.6
58	18.6	13	58.9	5	22.7	6	27.2	2	9.1	1	4.6
115	23.9	28	75.4	10	26.9	18	48.5	4	10.8	11	9.4
463	30.1	79	67.3	34	28.9	37	31.5	12	10.2		
202	19.6	63	80.5	31	39.6	28	35.8	12	15.3	7	8.9
69	17.9	21	67.2	11	35.2	5	16.0	6	19.2	5	16.0
16	23.9	5	81.0	3	48.6	3	48.6	2	32.4		
43	17.9	16	90.5	7	34.6	9	50.9	3	17.0	1	5.7
40	18.8	15	107.7	5	35.9	8	57.4			1	7.2
34	27.0	6	65.2	5	54.3	3	32.6	1	10.9		
458	28.6	72	62.0	24	20.6	44	37.8	8	6.9	5	4.3
656	28.4	146	73.0	35	17.5	116	58.0	40	20.0	21	10.5
18	9.3	12	65.3	3	16.3	13	70.7	1	5.4		
42	17.4	20	90.1	6	27.0	16	72.1	1	4.5	1	4.5
97	25.7	33	86.2	5	13.1	19	49.6	6	15.7	3	7.8
499	33.4	81	66.9	21	17.3	68	56.1	32	26.4	17	14.0
207	21.4	62	76.7	19	23.5	54	66.8	23	28.4	15	18.5
78	19.4	26	80.5	6	18.6	13	40.3	14	43.3	10	31.0
9	16.1	4	62.6	1	15.7	2	31.3	3	47.0	2	31.3
54	25.1	15	82.1	8	43.8	14	76.6	3	16.4	1	5.5
34	19.1	9	62.5	2	13.9	16	111.1	3	20.8		
32	27.6	8	84.1	2	21.0	9	94.6			2	21.0
449	33.5	84	70.4	16	13.4	62	52.0	17	14.3	6	5.0
651	29.2	140	72.6	50	25.9	66	34.2	42	21.8	21	10.9
21	12.1	11	61.5	6	33.6	5	28.0	1	5.6	2	11.2
53	23.5	9	43.3	7	33.6	6	28.8	1	4.8	1	4.8
110	28.4	19	51.7	11	29.0	18	48.9	7	19.0	4	10.9
467	32.3	101	86.2	26	22.2	37	31.6	33	28.2	14	11.9
217	22.2	67	85.7	26	33.2	25	32.0	22	28.1	14	17.9
78	18.6	25	80.0	5	16.0	13	41.6	11	35.2	7	22.4
27	35.5	4	64.8	3	48.6			1	16.2		
51	22.7	18	101.8	4	22.6	4	22.6	4	22.6	5	28.3
36	22.4	14	100.5	9	64.6	4	28.7	4	28.7	2	14.4
25	25.5	6	65.2	5	54.3	4	43.5	2	21.7		
434	34.7	73	63.7	24	20.9	41	35.8	20	17.4	7	6.1
715	30.6	167	83.6	45	22.5	47	23.5	50	25.0	23	11.5
21	10.0	10	55.1	4	22.1	5	27.6			1	5.5
55	23.1	24	107.9	4	18.0	3	13.5			1	4.5
117	32.0	35	92.3	8	21.1	8	21.1	6	15.8	4	10.5
322	34.3	98	80.8	29	23.9	31	25.5	44	36.3	17	14.0
234	23.2	69	85.3	21	26.0	19	23.5	31	38.3	13	16.1
96	22.5	30	92.9	8	24.8	5	15.5	24	74.3	9	27.9
19	30.6	4	62.6			2	31.3	3	47.0	2	31.3
54	26.1	12	65.7	3	16.4	5	27.4	1	5.5		
31	16.2	9	62.5	6	41.7	4	27.8	2	13.9		
34	27.4	14	147.2	4	42.1	3	31.5	1	10.5	2	21.0
461	36.3	98	82.4	24	20.2	28	23.5	19	16.0	10	8.4

Table 15.—Concluded.—Mortality in Michigan, by geographical sections and groups of

Population by geographical sections and as urban and rural.	Deaths and annual death rates per 100,000 population from important causes.							
	Scarlet fever.		Measles.		Whooping cough.		Pneumonia.	
	Num- ber.	Death rate.	Num- ber.	Death rate.	Num- ber.	Death rate.	Num- ber.	Death rate.
SEPTEMBER.....	8	4.1	3	1.5	19	9.8	87	44.7
I.—UPPER PENINSULA.....					9	51.0	4	22.7
II.—NORTHERN COUNTIES.....			1	4.5	2	9.1	8	36.3
III.—CENTRAL COUNTIES.....			1	2.7	2	5.4	12	32.3
IV.—SOUTHERN COUNTIES.....	8	6.8	1	0.9	6	5.1	63	53.6
ALL CITIES.....	5	6.4			13	16.6	48	61.4
Over 50,000.....	4	12.8			4	12.8	21	67.2
25,000 to 50,000.....							2	32.4
10,000 to 25,000.....					7	34.6	12	67.9
5,000 to 10,000.....	1	10.9			1	7.2	6	43.1
Under 5,000.....	1	10.9			1	10.9	7	76.1
COUNTRY.....	3	2.6	3	2.6	6	5.2	39	33.5
OCTOBER.....	20	10.0	10	5.0	10	5.0	139	69.5
I.—UPPER PENINSULA.....	2	10.9	3	16.3	3	16.3	18	97.9
II.—NORTHERN COUNTIES.....	8	36.0	3	13.5	1	4.5	15	67.6
III.—CENTRAL COUNTIES.....	2	5.2			1	2.6	21	54.9
IV.—SOUTHERN COUNTIES.....	8	6.6	4	3.3	5	4.1	85	70.2
ALL CITIES.....	12	14.8	6	7.4	3	3.7	66	81.6
Over 50,000.....	5	15.5	4	12.4	3	9.3	32	99.1
25,000 to 50,000.....	1	15.7					4	62.6
10,000 to 25,000.....	1	5.5	2	10.9			13	71.1
5,000 to 10,000.....	5	34.7					13	90.3
Under 5,000.....							4	42.1
COUNTRY.....	8	6.7	4	3.4	7	5.9	73	61.2
NOVEMBER.....	18	9.3	22	11.4	11	5.7	157	81.4
I.—UPPER PENINSULA.....	5	28.0	1	5.6	1	5.6	14	78.3
II.—NORTHERN COUNTIES.....	5	24.0	3	19.2	3	14.4	19	91.3
III.—CENTRAL COUNTIES.....	4	10.9			2	5.4	17	46.2
IV.—SOUTHERN COUNTIES.....	4	3.4	17	14.5	5	4.3	107	91.3
ALL CITIES.....	4	5.1	15	19.2	5	6.4	79	101.0
Over 50,000.....			12	38.4	2	6.4	39	124.9
25,000 to 50,000.....	1	16.2					1	16.2
10,000 to 25,000.....			3	17.0	1	5.7	16	90.5
5,000 to 10,000.....	1	7.2			1	7.2	10	71.8
Under 5,000.....	2	21.7			1	10.9	13	141.3
COUNTRY.....	14	12.2	7	6.1	6	5.2	78	68.0
DECEMBER.....	24	12.0	29	14.5	25	12.5	225	112.6
I.—UPPER PENINSULA.....	10	55.1	5	27.6	7	38.6	27	148.9
II.—NORTHERN COUNTIES.....	5	22.5	5	22.5	5	22.5	19	85.4
III.—CENTRAL COUNTIES.....	2	5.3	1	2.6	3	7.9	32	84.4
IV.—SOUTHERN COUNTIES.....	7	5.8	18	14.8	10	8.2	147	121.1
ALL CITIES.....	8	9.9	16	19.8	11	13.6	101	124.9
Over 50,000.....	2	6.2	12	37.2	3	9.3	57	176.5
25,000 to 50,000.....					1	15.7	3	47.0
10,000 to 25,000.....			4	21.9	1	5.5	19	104.0
5,000 to 10,000.....					4	27.8	9	62.5
Under 5,000.....					2	21.0	13	136.7
COUNTRY...					7	11.8	124	104.2

cities, as originally published in the Michigan Monthly Bulletin of Vital Statistics, 1899.

Deaths and annual death rates per 100,000 population from important causes.

Diarrheal diseases under 5 years.		Cerebrospinal meningitis.		Influenza.		Puerperal septicemia.		Cancer.		Violence.	
Num-ber.	Death rate.	Num-ber.	Death rate.	Num-ber.	Death rate.	Num-ber.	Death rate.	Num-ber.	Death rate.	Num-ber.	Death rate.
522	268.3	47	24.2	10	5.1	7	3.6	116	59.6	188	96.6
103	583.3	3	17.0	1	5.7			9	51.0	34	192.5
89	403.6	3	13.6					9	40.8	27	122.4
110	296.3	10	26.9	2	5.4	2	5.4	13	35.0	21	56.6
220	187.4	31	26.4	7	6.0	5	4.3	85	72.3	106	90.3
170	217.3	17	21.7	6	7.7	3	3.8	43	55.0	79	101.0
56	179.3	8	25.6	1	3.2	2	6.4	15	48.0	31	99.2
5	81.0	1	16.2					4	64.8	5	81.0
38	215.0	2	11.3	1	5.7	1	5.7	8	45.3	19	107.5
43	308.8	4	28.7	3	21.5			9	64.6	15	107.7
28	304.3	2	21.7	1	10.9			7	76.1	9	97.8
352	302.9	30	25.8	4	3.4	4	3.4	73	62.7	109	93.8
151	75.5	26	13.0	9	4.5	17	8.5	97	48.5	132	67.5
25	136.0	4	21.8	4	21.8			1	5.4	17	92.4
20	90.1	4	18.0	2	9.0	5	22.5	10	45.0	18	81.1
20	52.2	3	7.8			4	10.4	15	39.2	30	78.4
86	71.0	15	12.4	3	2.5	8	6.6	71	58.6	70	57.8
68	84.1	10	12.4	5	6.2	6	5.4	51	63.1	47	58.1
29	89.8	6	18.6			2	6.2	16	49.5	20	61.9
2	31.3							7	109.6	3	47.0
15	82.1	2	10.9	1	5.5	2	10.9	17	93.0	9	49.2
14	97.2	1	6.9	4	27.8	1	6.9	7	48.6	6	41.7
8	84.1	1	10.5			1	10.5	4	42.1	9	94.6
83	69.6	16	13.4	4	3.4	11	9.2	46	38.6	88	73.8
77	39.9	32	16.6	9	4.7	10	5.2	121	62.7	147	76.2
3	16.8	3	16.8					7	39.2	22	123.1
14	67.3	2	9.6	1	4.8			14	67.3	17	81.7
13	35.3	10	27.2	3	8.2	2	5.4	23	62.5	16	43.5
47	40.1	17	14.3	5	4.3	8	6.8	77	65.7	92	78.5
48	61.4	13	16.6	2	2.6	3	3.8	50	63.9	60	76.7
27	86.4	6	19.2			1	3.2	19	60.8	23	73.6
5	81.0							7	113.4	1	16.2
5	28.3	3	17.0	1	5.7	1	5.7	13	73.6	16	90.5
7	50.3	3	21.5	1	7.2	1	7.2	6	43.1	14	100.5
4	43.5	1	10.9					5	34.3	6	65.2
29	25.3	19	16.6	7	6.1	7	6.1	71	61.9	87	75.9
69	34.5	24	12.0	15	7.5	17	8.5	115	57.6	121	60.6
13	71.7	2	11.0					10	35.1	20	110.3
12	53.9	1	4.5			2	9.0	11	49.5	15	67.4
9	23.7	3	7.9	2	5.3	3	7.9	12	31.6	24	63.3
35	28.8	18	14.8	13	10.7	12	9.9	82	67.6	62	51.1
29	35.9	8	9.9	5	6.2	7	8.7	50	61.8	52	64.3
13	40.3	4	12.4	2	6.2	4	12.4	20	61.9	17	52.6
		1	15.7					2	31.3	3	47.0
7	38.3	2	10.9	1	5.5	3	16.4	12	65.7	16	87.6
6	41.7	1	6.9	2	13.9			9	62.5	8	55.6
3	31.5							7	73.6	8	84.1
40	33.6	16	13.5	10	8.4	10	8.4	65	54.6	63	58.3

Table 15.—Continued.—Mortality in Michigan, by geographical sections and groups of

Population by geographical sections and as urban and rural.	Deaths and annual death rates per 100,000 population from important causes.							
	Scarlet fever.		Measles.		Whooping cough.		Pneumonia.	
	Num- ber.	Death rate.	Num- ber.	Death rate.	Num- ber.	Death rate.	Num- ber.	Death rate.
MAY.....	7	3.5	16	8.0	12	6.0	199	100.1
I.—UPPER PENINSULA.....	3	16.8	1	5.6	5	27.9	27	150.5
II.—NORTHERN COUNTIES.....	1		6	27.0			18	81.0
III.—CENTRAL COUNTIES.....	2	5.3	8	21.1	3	7.9	43	113.6
IV.—SOUTHERN COUNTIES.....	2	1.7	1	0.8	4	3.3	111	92.0
ALL CITIES.....	2	2.5	6	7.4	6	7.4	89	110.0
Over 50,000.....					2	6.2	46	142.4
25,000 to 50,000.....	1	15.7					9	140.9
10,000 to 25,000.....	1	5.5			1	5.5	19	104.0
5,000 to 10,000.....			1	6.9	2	13.9	8	55.6
Under 5,000.....			5	52.6	1	10.5	7	73.6
COUNTRY.....	5	4.2	10	8.5	6	5.1	110	93.2
JUNE.....	7	3.7	19	9.9	15	7.8	96	50.1
I.—UPPER PENINSULA.....	3	17.3	5	28.8	4	23.0	17	97.8
II.—NORTHERN COUNTIES.....	1		4	18.9	1	4.7	11	52.0
III.—CENTRAL COUNTIES.....	2		2	5.5	4	11.0	13	35.7
IV.—SOUTHERN COUNTIES.....	4	3.4	8	6.9	6	5.2	75	47.2
ALL CITIES.....	4	5.1	8	10.2	5	6.4	51	65.2
Over 50,000.....			5	16.0	1	3.2	20	64.0
25,000 to 50,000.....			1	16.2			4	64.8
10,000 to 25,000.....					1	5.7	19	107.5
5,000 to 10,000.....	2	14.4	1	7.2	3	21.5	7	50.3
Under 5,000.....	2	21.7	1	10.9			1	10.9
COUNTRY.....	3	2.6	11	9.7	10	8.8	45	39.7
JULY.....	7	3.5	6	3.0	20	10.1	66	33.5
I.—UPPER PENINSULA.....	1	5.5	2	10.9	3	16.4	13	71.5
II.—NORTHERN COUNTIES.....	1	4.5	2	9.0	4	17.9	4	17.5
III.—CENTRAL COUNTIES.....			1	2.7	3	8.0	9	28.1
IV.—SOUTHERN COUNTIES.....	5	4.2	1	0.8	10	8.3	40	33.7
ALL CITIES.....	1	1.2	1	1.2	9	11.1	38	47.9
Over 50,000.....					4	12.4	19	56.5
25,000 to 50,000.....							4	62.9
10,000 to 25,000.....					2	10.9	8	43.5
5,000 to 10,000.....			1	6.9	2	13.9	3	20.7
Under 5,000.....	1	10.5			1	10.5	4	42.1
COUNTRY.....	6	5.1	5	4.2	11	9.3	28	23.1
AUGUST.....	9	4.5	7	3.5	34	17.0	82	41.1
I.—UPPER PENINSULA.....	1	5.5			6	32.7	15	81.1
II.—NORTHERN COUNTIES.....	2	8.8	4	17.7	7	30.9	12	53.1
III.—CENTRAL COUNTIES.....	2	5.3	1	2.6	11	29.0	13	34.1
IV.—SOUTHERN COUNTIES.....	4	3.3	2	1.7	10	8.3	42	34.1
ALL CITIES.....	4	4.9	2	2.5	14	17.3	39	45.9
Over 50,000.....					6	18.6	15	46.1
25,000 to 50,000.....	2	31.3	1	15.7			6	94.1
10,000 to 25,000.....	1	5.5			3	16.4	6	33.1
5,000 to 10,000.....	1	6.9	1	6.9	5	34.7	10	60.6
Under 5,000.....							2	21.1
COUNTRY.....	5	4.2	5	4.2	20	16.8	43	36.1

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Deaths and annual death rates per 100,000 population from important causes.

Diarrheal diseases under 5 years.		Cerebrospinal meningitis.		Influenza.		Puerperal septicemia.		Cancer.		Violence.	
Num-ber.	Death rate.	Num-ber.	Death rate.	Num-ber.	Death rate.	Num-ber.	Death rate.	Num-ber.	Death rate.	Num-ber.	Death rate.
61	30.7	133	66.9	34	17.1	18	9.1	92	46.3	135	67.9
12	67.0	30	167.5	3	16.8	1	5.6	6	33.5	17	94.9
9	40.4	29	130.3	5	22.5	1	4.5	12	53.9	26	116.8
11	29.1	20	52.8	6	15.8	3	7.9	22	58.1	18	47.5
29	24.0	54	44.8	20	16.6	13	10.8	52	43.1	74	61.3
32	39.6	57	70.5	9	11.1	9	11.1	40	49.4	52	64.3
15	46.4	20	61.9	2	6.2	9	27.9	12	37.2	16	49.5
1	15.7	4	62.6					4	62.6	6	94.0
5	27.4	12	65.7	3	16.4			9	49.2	15	82.1
7	48.6	16	111.1	4	27.8			8	55.6	10	69.5
4	42.1	5	52.6					7	73.6	5	52.6
29	24.6	76	64.4	25	21.2	9	7.6	52	44.0	83	70.3
172	89.8	55	28.7	25	13.1	11	5.7	96	50.1	153	79.9
11	63.3	13	74.8	1	5.8	3	17.3	4	23.0	19	109.3
6	28.4	9	42.6	5	23.7	1	4.7	10	47.3	17	80.4
23	63.2	10	27.5	7	19.2	1	2.7	16	44.0	32	87.9
132	113.4	23	19.8	12	10.3	6	5.2	66	56.7	85	73.0
114	145.8	17	21.7	10	12.8	6	7.7	41	52.4	68	86.9
101	323.3	5	16.0	3	9.6	1	3.2	16	51.2	25	80.0
4	64.8							4	64.8	6	97.2
3	17.0	4	22.6	1	5.7	2	11.3	7	39.6	17	96.2
3	21.5	6	43.1	3	21.5	1	7.2	6	43.1	12	86.2
3	32.6	2	21.7	3	32.6	2	21.7	8	87.0	8	87.0
58	51.2	38	33.5	15	13.2	5	4.4	55	48.5	85	75.0
285	133.5	52	26.2	14	7.1	15	7.6	107	53.9	175	88.1
29	158.7	16	87.6					3	16.4	26	142.3
17	76.2	5	22.4	3	13.4	3	13.4	7	31.4	25	112.0
28	74.4	10	26.6	2	5.3	2	5.3	26	69.1	36	96.6
191	158.9	21	17.5	9	7.5	10	8.3	71	59.1	88	73.2
164	202.8	20	24.7	5	6.2	4	4.9	47	58.1	69	85.3
113	349.3	10	31.0	3	9.3	3	9.3	18	55.7	25	77.4
2	31.3	1	15.7					4	62.6	7	109.6
22	120.4	4	21.9					10	54.7	20	109.4
15	104.2	4	27.8	2	13.9	1	6.9	10	69.5	7	48.6
12	126.2	1	10.5					5	52.6	10	105.1
101	85.8	32	27.2	9	7.6	11	9.3	60	51.0	106	90.1
501	250.6	45	22.5	8	4.0	18	9.0	112	56.0	193	96.5
104	567.6	4	21.8			2	10.9	6	32.7	32	174.6
82	302.0	5	22.1	2	8.8	1	4.4	12	53.0	28	123.6
99	261.1	7	18.5			4	10.5	20	52.7	31	81.7
216	178.6	29	24.0	6	5.0	11	9.1	74	61.2	102	84.3
215	205.7	23	28.4	6	7.4	7	8.7	39	48.2	90	111.2
76	235.3	5	15.5			4	12.4	16	49.5	35	108.4
12	187.9	1	15.7					2	31.3	8	125.3
61	333.8	6	32.8			1	5.5	10	54.7	13	71.1
45	312.5	6	41.7					9	62.5	28	194.5
21	220.8	5	52.6	6	63.1	2	21.0	2	21.0	6	63.1
296	240.2	22	18.5	2	1.7	11	9.2	73	61.3	103	86.5

Table 15.—Continued.—Mortality in Michigan, by geographical sections and groups of

Population by geographical sections and as urban and rural.	Total reporting population by State census of 1894.	Total deaths reported for 1899.	Annual death rates per 1,000 est- imated popula- tion.	Still- births.	Important			
					Under 1.		1 to 4.	
					Num- ber.	Per cent.	Num- ber.	Per cent.
SEPTEMBER.....	2,191,926	2,733	14.1	97	683	25.9	248	9.4
I.—UPPER PENINSULA	186,267	325	18.4	19	116	37.9	39	12.7
II.—NORTHERN COUNTIES.....	235,604	324	14.7	12	113	36.2	33	10.6
III.—CENTRAL COUNTIES.....	432,738	496	13.4	14	128	26.6	44	9.1
IV.—SOUTHERN COUNTIES.....	1,337,317	1,588	13.5	52	326	21.2	132	8.6
ALL CITIES	839,936	1,096	14.0	64	283	27.4	92	8.9
Over 50,000.....	317,236	419	13.4	33	112	29.0	43	11.1
25,000 to 50,000.....	74,685	69	11.2	2	15	22.4	3	4.5
10,000 to 25,000.....	197,039	260	14.7	20	62	25.8	20	8.3
5,000 to 10,000.....	148,839	220	15.8	7	61	28.6	19	8.9
Under 5,000.....	102,137	128	13.9	2	33	26.2	7	5.6
COUNTRY.....	1,351,990	1,637	14.1	33	400	24.9	156	9.7
OCTOBER.....	2,182,349	2,428	12.1	121	381	16.5	165	7.2
I.—UPPER PENINSULA	187,638	212	11.5	18	59	30.4	16	8.2
II.—NORTHERN COUNTIES.....	229,332	251	11.3	10	47	19.5	21	8.7
III.—CENTRAL COUNTIES.....	431,624	397	10.4	20	51	13.5	31	8.2
IV.—SOUTHERN COUNTIES.....	1,333,755	1,568	12.9	73	224	15.0	97	6.5
ALL CITIES	839,936	1,036	12.8	69	188	19.4	75	7.8
Over 50,000.....	317,236	441	13.7	39	104	25.9	42	10.4
25,000 to 50,000.....	74,685	58	9.1	2	5	8.9	6	10.7
10,000 to 25,000.....	197,039	229	12.5	14	34	15.8	9	4.2
5,000 to 10,000.....	148,839	188	13.1	10	29	16.3	13	7.3
Under 5,000.....	102,137	120	12.6	4	16	13.8	5	4.3
COUNTRY.....	1,342,413	1,392	11.7	52	193	14.4	90	6.7
NOVEMBER.....	2,174,663	2,350	12.2	119	345	15.5	171	7.7
I.—UPPER PENINSULA	188,567	190	10.6	17	44	25.4	20	11.6
II.—NORTHERN COUNTIES.....	222,286	239	11.5	13	43	19.0	20	8.8
III.—CENTRAL COUNTIES.....	428,628	403	11.0	16	53	13.7	28	7.2
IV.—SOUTHERN COUNTIES.....	1,335,182	1,518	12.9	73	205	14.2	103	7.1
ALL CITIES	839,936	1,062	13.6	83	200	20.4	94	9.6
Over 50,000.....	317,236	460	14.7	41	112	26.7	54	12.9
25,000 to 50,000.....	74,685	84	13.6	8	15	19.7	1	1.3
10,000 to 25,000.....	197,039	241	13.6	16	31	13.8	18	8.0
5,000 to 10,000.....	148,839	174	12.5	13	29	18.0	10	6.2
Under 5,000.....	102,137	103	11.2	5	13	13.3	11	11.2
COUNTRY.....	1,334,727	1,288	11.2	36	145	11.6	77	6.2
DECEMBER.....	2,178,991	2,459	12.3	124	348	14.9	194	8.3
I.—UPPER PENINSULA	185,059	233	12.8	22	57	27.0	29	13.7
II.—NORTHERN COUNTIES.....	229,778	244	11.0	6	48	20.2	26	10.9
III.—CENTRAL COUNTIES.....	427,568	386	10.2	20	46	12.6	22	6.0
IV.—SOUTHERN COUNTIES.....	1,336,586	1,596	13.2	76	197	13.0	117	7.7
ALL CITIES	839,936	1,081	13.4	71	165	16.3	99	9.8
Over 50,000.....	317,236	468	14.5	42	79	18.5	60	14.1
25,000 to 50,000.....	74,685	67	10.5	5	10	16.1	5	8.1
10,000 to 25,000.....	197,039	222	12.1	15	39	18.8	15	7.2
5,000 to 10,000.....	148,839	197	13.7	6	26	13.6	11	5.8
Under 5,000.....	102,137	127	13.4	3	11	8.9	8	6.5
COUNTRY.....	1,339,055	1,378	11.6	53	183	13.8	95	7.2

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ages.		Deaths and annual death rates per 100,000 population from important causes.									
15 and over.		Consumption.		Other tuberculosis.		Typhoid fever.		Diphtheria.		Croup.	
Num- ber.	Per cent.	Num- ber.	Death rate.	Num- ber.	Death rate.	Num- ber.	Death rate.	Num- ber.	Death rate.	Num- ber.	Death rate.
600	25.0	135	69.4	55	28.3	72	37.0	20	10.3	12	6.2
24	7.8	15	84.9	6	34.0	11	62.3	2	11.3	1	4.5
58	18.6	13	58.9	5	22.7	6	27.2	2	9.1	1	4.5
115	23.9	28	75.4	10	26.9	18	48.5	4	10.8	1	4.5
463	30.1	79	67.3	34	28.9	37	31.5	12	10.2	11	9.4
202	19.6	63	80.5	31	39.6	28	35.8	12	15.3	7	8.9
89	17.9	21	67.2	11	35.2	5	16.0	6	19.2	5	16.0
16	23.9	5	81.0	3	48.6	3	48.6	2	32.4	1	5.7
43	17.9	16	90.5	7	34.6	9	50.9	3	17.0	1	5.7
40	18.8	15	107.7	5	35.9	8	67.4	1	10.9	1	7.2
34	27.0	6	65.2	5	54.3	3	32.6	1	6.9	5	4.3
458	28.6	72	62.0	24	20.6	44	37.8	8	6.9	5	4.3
656	28.4	146	73.0	35	17.5	116	58.0	40	20.0	21	10.5
18	9.3	12	65.3	3	16.3	13	70.7	1	5.4	1	4.5
42	17.4	20	90.1	6	27.0	16	72.1	1	4.5	1	4.5
97	25.7	33	86.2	5	13.1	19	49.6	6	15.7	3	7.8
499	33.4	81	66.9	21	17.3	68	56.1	32	26.4	17	14.0
207	21.4	62	76.7	19	23.5	54	66.8	23	28.4	15	18.5
78	19.4	26	80.5	6	18.6	13	40.3	14	43.3	10	31.0
9	16.1	4	62.6	1	15.7	2	31.3	3	47.0	2	31.3
54	25.1	15	82.1	8	43.8	14	76.6	3	16.4	1	5.5
34	19.1	9	62.5	2	13.9	16	111.1	3	20.8	2	21.0
32	27.6	8	84.1	2	21.0	9	94.6	1	14.3	6	5.0
449	33.5	84	70.4	16	13.4	62	52.0	17	14.3	6	5.0
651	29.2	140	72.6	50	25.9	66	34.2	42	21.8	21	10.9
21	12.1	11	61.5	6	33.6	5	28.0	1	5.6	2	11.2
53	23.5	9	43.3	7	33.6	6	28.8	1	4.8	1	4.8
110	28.4	19	51.7	11	29.9	18	48.9	7	19.0	4	10.9
467	32.3	101	86.2	26	22.2	37	31.6	33	28.2	14	11.9
217	22.2	67	85.7	26	33.2	25	32.0	22	28.1	14	17.9
78	18.6	25	80.0	5	16.0	13	41.6	11	36.2	7	22.4
27	36.5	4	64.8	3	48.6	1	16.2	1	16.2	5	28.3
51	22.7	18	101.8	4	22.6	4	22.6	4	22.6	2	14.4
36	22.4	14	100.5	9	64.6	4	28.7	4	28.7	2	14.4
25	25.5	6	65.2	5	54.3	4	43.5	2	21.7	7	6.1
434	34.7	73	63.7	24	20.9	41	35.8	20	17.4	7	6.1
715	30.6	167	83.6	45	22.5	47	23.5	50	25.0	23	11.5
21	10.0	10	55.1	4	22.1	5	27.6	1	5.5	1	5.5
35	23.1	24	107.9	4	18.0	3	13.5	1	4.5	1	4.5
117	32.0	35	92.3	8	21.1	8	21.1	6	15.8	4	10.5
522	34.3	98	80.8	29	23.9	31	25.5	44	36.3	17	14.0
234	23.2	69	85.3	21	26.0	19	23.5	31	38.3	13	16.1
96	22.5	30	92.9	8	24.8	5	15.5	24	74.3	9	27.9
19	30.6	4	62.6	3	16.4	2	31.3	3	47.0	2	31.3
54	26.1	12	65.7	3	16.4	5	27.4	1	5.5	1	5.5
31	16.2	9	62.5	6	41.7	4	27.8	2	13.9	2	21.0
34	27.4	14	147.2	4	42.1	3	31.5	1	10.5	2	21.0
491	36.3	98	82.4	24	20.2	28	23.5	19	16.0	10	8.4

Table 15.—Concluded.—Mortality in Michigan, by geographical sections and groups of

Population by geographical sections and as urban and rural.	Deaths and annual death rates per 100,000 population from important causes.							
	Scarlet fever.		Measles.		Whooping cough.		Pneumonia.	
	Num- ber.	Death rate.	Num- ber.	Death rate.	Num- ber.	Death rate.	Num- ber.	Death rate.
SEPTEMBER.....	8	4.1	3	1.5	19	9.8	87	44.7
I.—UPPER PENINSULA.....					9	51.0	4	22.7
II.—NORTHERN COUNTIES.....			1	4.5	2	9.1	8	36.3
III.—CENTRAL COUNTIES.....			1	2.7	2	5.4	12	32.3
IV.—SOUTHERN COUNTIES.....	8	6.8	1	0.9	6	5.1	63	53.6
ALL CITIES.....	5	6.4			13	16.6	48	61.4
Over 50,000.....	4	12.8			4	12.8	21	67.2
25,000 to 50,000.....							2	32.4
10,000 to 25,000.....					7	34.6	12	67.9
5,000 to 10,000.....					1	7.2	6	43.1
Under 5,000.....	1	10.9			1	10.9	7	76.1
COUNTRY.....	3	2.6	3	2.6	6	5.2	39	33.5
OCTOBER.....	20	10.0	10	5.0	10	5.0	139	69.5
I.—UPPER PENINSULA.....	2	10.9	3	16.3	3	16.3	18	97.9
II.—NORTHERN COUNTIES.....	8	36.0	3	13.5	1	4.5	15	67.6
III.—CENTRAL COUNTIES.....	2	5.2			1	2.6	21	54.9
IV.—SOUTHERN COUNTIES.....	8	6.6	4	3.3	5	4.1	85	70.2
ALL CITIES.....	12	14.8	6	7.4	3	3.7	66	81.6
Over 50,000.....	5	15.5	4	12.4	3	9.3	32	99.1
25,000 to 50,000.....	1	15.7					4	62.6
10,000 to 25,000.....	1	5.5	2	10.9			13	71.1
5,000 to 10,000.....	5	34.7					13	90.3
Under 5,000.....							4	42.1
COUNTRY.....	8	6.7	4	3.4	7	5.9	73	61.2
NOVEMBER.....	18	9.3	22	11.4	11	5.7	157	81.4
I.—UPPER PENINSULA.....	5	28.0	1	5.6	1	5.6	14	78.3
II.—NORTHERN COUNTIES.....	5	24.0	3	19.2	3	14.4	19	91.3
III.—CENTRAL COUNTIES.....	4	10.9			2	5.4	17	46.2
IV.—SOUTHERN COUNTIES.....	4	3.4	17	14.5	5	4.3	107	91.3
ALL CITIES.....	4	5.1	15	19.2	5	6.4	79	101.0
Over 50,000.....			12	38.4	2	6.4	39	124.9
25,000 to 50,000.....	1	16.2					1	16.2
10,000 to 25,000.....			3	17.0			1	90.5
5,000 to 10,000.....	1	7.2			1	7.2	10	71.8
Under 5,000.....	2	21.7			1	10.9	13	141.3
COUNTRY.....	14	12.2	7	6.1	6	5.2	78	68.0
DECEMBER.....	24	12.0	29	14.5	25	12.5	225	112.6
I.—UPPER PENINSULA.....	10	55.1	5	27.6	7	38.6	27	148.9
II.—NORTHERN COUNTIES.....	5	22.5	5	22.5	5	22.5	19	85.4
III.—CENTRAL COUNTIES.....	2	5.3	1	2.6	3	7.9	32	84.4
IV.—SOUTHERN COUNTIES.....	7	5.8	18	14.8	10	8.2	147	121.1
ALL CITIES.....	8	9.9	16	19.8	11	13.6	101	124.9
Over 50,000.....	2	6.2	12	37.2	3	9.3	57	176.5
25,000 to 50,000.....	1	15.7			1	15.7	3	47.0
10,000 to 25,000.....			4	21.9	1	5.5	19	104.0
5,000 to 10,000.....	3	20.8			4	27.8	9	62.5
Under 5,000.....	2	21.0			2	21.0	13	136.7
COUNTRY.....	16	13.5	13	10.9	14	11.8	124	104.2

cities, as originally published in the Michigan Monthly Bulletin of Vital Statistics, 1899.

Deaths and annual death rates per 100,000 population from important causes.

Diarrheal diseases under 5 years.		Cerebrospinal meningitis.		Influenza.		Puerperal septicemia.		Cancer.		Violence.	
Num-ber.	Death rate.	Num-ber.	Death rate.	Num-ber.	Death rate.	Num-ber.	Death rate.	Num-ber.	Death rate.	Num-ber.	Death rate.
522	268.3	47	24.2	10	5.1	7	3.6	116	59.6	188	96.6
103	583.3	3	17.0	1	5.7			9	51.0	34	192.5
89	403.6	3	13.6					9	40.8	27	122.4
110	296.3	10	26.9	2	5.4	2	5.4	13	35.0	21	56.6
220	187.4	31	26.4	7	6.0	5	4.3	85	72.3	106	90.3
170	217.3	17	21.7	6	7.7	3	3.8	43	55.0	79	101.0
56	179.3	8	25.6	1	3.2	2	6.4	15	48.0	31	99.2
5	81.0	1	16.2					4	64.8	5	81.0
38	215.0	2	11.3	1	5.7	1	5.7	8	45.3	19	107.5
43	308.8	4	28.7	3	21.5			9	64.6	15	107.7
28	304.3	2	21.7	1	10.9			7	76.1	9	97.8
352	302.9	30	25.8	4	3.4	4	3.4	73	62.7	109	93.8
151	75.5	26	13.0	9	4.5	17	8.5	97	48.5	135	67.5
25	136.0	4	21.8	4	21.8			1	5.4	17	92.4
20	90.1	4	18.0	2	9.0	5	22.5	10	45.0	18	81.1
20	52.2	3	7.8			4	10.4	15	39.2	30	78.4
86	71.0	15	12.4	3	2.5	8	6.6	71	58.6	70	57.8
68	84.1	10	12.4	5	6.2	6	5.4	51	63.1	47	58.1
29	89.8	6	18.6			2	6.2	16	49.5	20	61.9
2	31.3							7	109.6	3	47.0
15	82.1	2	10.9	1	5.5	2	10.9	17	93.0	9	49.2
14	97.2	1	6.9	4	27.8	1	6.9	7	46.6	6	41.7
8	84.1	1	10.5			1	10.5	4	42.1	9	94.6
83	69.6	16	13.4	4	3.4	11	9.2	46	38.6	88	73.8
77	39.9	32	16.6	9	4.7	10	5.2	121	62.7	147	76.2
3	16.8	3	16.8					7	39.2	22	123.1
14	67.3	2	9.6	1	4.8			14	67.3	17	81.7
13	35.3	10	27.2	3	8.2	2	5.4	23	62.5	16	43.5
47	40.1	17	14.5	5	4.3	8	6.8	77	65.7	92	78.5
48	61.4	13	16.6	2	2.6	3	3.8	50	63.9	60	76.7
27	86.4	6	19.2			1	3.2	19	60.8	23	73.6
5	81.0							7	113.4	1	16.2
5	28.3	3	17.0	1	5.7	1	5.7	13	73.6	16	90.5
7	50.3	3	21.5	1	7.2	1	7.2	6	43.1	14	100.5
4	43.5	1	10.9					5	54.3	6	65.2
29	25.3	19	16.6	7	6.1	7	6.1	71	61.9	87	75.9
69	34.5	24	12.0	15	7.5	17	8.5	115	57.6	121	60.6
13	71.7	2	11.0					10	55.1	20	110.3
12	53.9	1	4.5					11	49.5	15	67.4
9	23.7	3	7.9	2	5.3	3	7.9	12	31.6	24	63.3
35	28.8	18	14.8	13	10.7	12	9.9	82	67.6	62	51.1
29	35.9	8	9.9	5	6.2	7	8.7	50	61.8	52	64.3
13	40.3	4	12.4	2	6.2	4	12.4	20	61.9	17	52.6
		1	15.7					2	31.3	3	47.0
7	36.3	2	10.9	1	5.5	3	16.4	12	65.7	16	87.6
6	41.7	1	6.9	2	13.9			9	62.5	8	55.6
3	31.5							7	73.6	8	84.1
40	33.6	16	13.5	10	8.4	10	8.4	65	54.6	69	58.0

DEATHS IN CITIES OF MICHIGAN, 1899.

Table 16 shows the number of deaths reported for 1899 from each city of the State, together with the population, as given by the United States census of 1900. It should be distinctly noted that this table is the only one in the report in which the results of the United States census of 1900 have been employed. It was deemed advisable to base all other rates upon the uniformly estimated population of the year 1899 based upon the comparison of the censuses of 1890 and 1894, so that when the population data according to the United States census of 1900 were available, uniform factors of correction could be applied to the rates.

Table 16.—Cities of Michigan, grouped in order of population by U. S. census of 1900, with deaths and death rates per 1,000 estimated population, 1899. (Stillbirths included.)

Cities.	Population by U. S. census of 1900.	Deaths re-turned 1899.	Death rate per 1,000 estimated population.*	Cities.	Population by U. S. census of 1900.	Deaths re-turned 1899.	Death rate per 1,000 estimated population.*
TOTAL CITIES...	938,393	14,087	15.3	Monroe	5,043	78	15.2
CITIES OVER 50,000 POPULATION.....	373,269	5,946	16.3	Mt. Clemens.....	6,576	101	15.7
Detroit.....	285,704	4,611	16.6	Negaunee.....	6,935	76	11.2
Grand Rapids.....	87,565	1,335	15.5	Owosso.....	8,696	114	13.2
CITIES FROM 25,000 TO 50,000 POPULATION..	95,153	1,230	12.9	Petoskey.....	5,285	69	13.8
Bay City.....	27,628	348	12.4	Pontiac.....	9,769	132	14.1
Jackson.....	25,180	316	12.8	St. Joseph.....	5,155	65	12.9
Saginaw.....	42,345	566	13.2	Traverse City....	9,407	161	18.3
CITIES FROM 10,000 TO 25,000 POPULATION..	212,890	3,108	14.8	Wyandotte.....	5,183	69	13.7
Alpena.....	11,802	188	15.9	Ypsilanti.....	7,378	102	14.2
Ann Arbor.....	14,509	181	13.0	CITIES UNDER 5,000 POPULATION.....	104,075	1,559	15.0
Battle Creek.....	18,563	269	14.9	Albion.....	4,519	73	16.0
Flint.....	13,103	175	13.8	Au Sable.....	1,116	16	11.6
Ishpeming.....	13,255	197	15.2	Belding.....	3,282	44	13.6
Kalamazoo.....	24,404	443	18.6	Bessemer.....	3,911	66	17.9
Lansing.....	16,485	206	12.6	Big Rapids.....	4,686	91	19.1
Manistee.....	14,260	192	13.6	Charlotte.....	4,692	62	15.0
Marquette.....	10,058	157	15.7	Clare.....	1,326	32	23.9
Menominee.....	12,818	232	18.2	Corunna.....	1,510	29	19.1
Muskegon.....	20,818	271	13.1	Crystal Falls....	3,231	13	4.5
Port Huron.....	19,158	268	14.1	Dowagiac.....	4,151	73	18.0
Sault Ste. Marie..	10,538	156	15.6	East Tawas.....	1,736	34	18.5
West Bay City....	13,119	173	13.3	Eaton Rapids....	2,103	38	18.0
CITIES FROM 5,000 TO 10,000 POPULATION..	153,006	2,244	15.0	Gladstone.....	3,380	36	11.3
Adrian.....	9,654	142	14.7	Gladwin.....	775	10	12.6
Benton Harbor...	6,562	94	14.8	Grand Haven....	4,743	68	14.1
Cadillac.....	5,997	92	15.7	Grand Ledge....	2,161	35	16.1
Cheboygan.....	6,489	115	17.5	Greenville.....	3,381	55	16.5
Coldwater.....	6,216	89	14.7	Harrison.....	647	12	18.1
Escanaba.....	9,549	181	19.4	Hastings.....	3,172	40	12.7
Holland.....	7,790	117	15.5	Hillsdale.....	4,151	59	14.2
Irona.....	5,209	73	14.1	Hudson.....	2,403	28	11.7
Iron Mountain....	9,242	135	15.0	Lapeer.....	3,297	51	15.7
Ironwood.....	9,705	137	14.2	Marine City....	3,829	62	16.4
Ludington.....	7,166	102	13.9	Marshall.....	4,370	69	15.7
				Mason.....	1,828	35	19.3
				Midland.....	2,363	42	17.6
				Mt. Pleasant....	3,602	48	13.4
				Niles.....	4,287	40	9.3
				North Muskegon.	513	5	8.6
				Norway.....	4,170	75	18.4
				St. Clair.....	2,543	30	11.8
				St. Ignace.....	2,271	34	15.2
				St. Louis.....	1,989	30	14.8
				Stanton.....	1,234	36	28.9
				Sturgis.....	2,465	33	13.1
				Tawas City.....	1,228	14	11.4
				Three Rivers....	3,550	41	11.8

* Estimated on basis of average annual increase from State census of 1894 to U. S. census of 1900.

† Incorporated March 23, 1899; compilation for 1899 made from that date.

For the purpose, however, of studying the mortality of the cities of the State, it was practicable and very desirable to use the latest census figures, inasmuch as some of the cities have shown great variations in their size, and estimated populations would have been quite inapplicable in certain cases.

The grouping of the cities is somewhat different than that shown in the last report, which fact should be taken into consideration in comparing the group totals. The total urban population of the State, including in this designation such small towns as Gladwin, 775, Harrison, 645, and North Muskegon, 530, places which have few of the requisites of a city except the possession of a city charter, is 938,393, and the total number of deaths returned from these cities for the year was 14,087. The death rate, based on the estimated population for the year 1899, was 15.3 per thousand which may be compared with the rural death rate of 13.5. It should be remembered, in making comparisons with the results of the United States census, that the limit used by the latter for inclusion in the list of cities is 8,000 population, and hence that the long list of cities under 5,000 population in the State entirely disappears from consideration.

The group of cities over 50,000 population consists of only two, Detroit with a death rate of 16.6, and Grand Rapids with a death rate of 15.5 for the year. Cities from 25,000 to 50,000, which list has been increased since the last census by the addition of Jackson, show the lowest recorded mortality in the State, being 12.9 per thousand population. This is so remarkably low that it will perhaps be questioned by those accustomed to seeing higher rates recorded for cities of corresponding size.

The group of cities from 10,000 to 25,000 population has a rate of 14.8 per thousand, and there appears to be considerable uniformity in the distribution of the mortality, Menominee having the highest, 18.2 per thousand, and Lansing the lowest, 12.6 per thousand. Two of the cities in this list, Alpena and Manistee, were rejected by the United States census authorities, owing to the belief that their registration returns were not sufficiently accurate to be included.

The cities from 5,000 to 10,000 population show a death rate of 15.0 slightly less than the average for the State, they also show considerable uniformity in the distribution of mortality. The maximum death rate in this group, 19.4 per thousand, is that of the city of Escanaba, and the minimum mortality belongs to Negaunee, with 11.2 per thousand.

The first city in this group, Adrian, is one of the three cities in the State, Alpena, Adrian and Manistee, having a population of 8,000 and upwards and rejected by the United States census authorities for supposed imperfect registration. Besides Adrian in this group, which was omitted by the census as not having accurate registration, certain other cities of less than 8,000 population appear to have defective returns according to the census. These are Holland and Ypsilanti. In the latter the percentage of imperfection, according to the preliminary statement of the census authorities, was the greatest of any city in the State.

Cities under 5,000 population, which are hardly included in the class of cities as usually studied in registration reports, show the same

mortality, 15.0, as the preceding group. There are, however, greater variations in the rates for individual cities. Stanton shows a rate of 28.9 per thousand and Niles a rate of only 9.3 per thousand. North Muskegon, which shows the lowest rate, 8.6 per thousand, has a population so small that even an annual rate has little significance.

No statements have been received as to the accuracy of registration in the majority of the cities in this group, but in only two instances, Coldwater and Grand Haven, did it appear, according to the United States census authorities, that the registration was slightly below the standard.

SECTION II.—CAUSES OF DEATH IN MICHIGAN DURING THE YEAR 1899.

The most important part of a registration report consists of the statistics relating especially to individual causes of death, because, without a knowledge of the prevalence of different diseases, intelligent efforts cannot be made for their restriction and prevention on the part of sanitary authorities; or, if such efforts are made, it cannot be definitely known with what measure of success or failure they have been attended. Accurate vital statistics are considered absolutely essential instruments of modern sanitary progress, and no class of information collected under this head is of such paramount importance as the knowledge of the mortality from individual diseases and groups of diseases.

Such information depends, for its primary origin, upon the statements of physicians. This is the source, above which the statistical stream flowing therefrom cannot rise. The physician's diagnosis of cause of death is the starting point, and when this is clearly and definitely given, the certificate of death becomes a valuable instrument of sanitary progress as well as of scientific research. When the statement of cause of death is ambiguous, or is evidently based upon ignorance of pathological conditions and of the natural history of disease, then, just so far, it serves to vitiate the quality of the statistical evidence presented in the registration report.

Every effort made to elevate the status of the medical profession, either by requiring a higher standard of preliminary education or by insisting on the passage of a State examination as a requisite to the right to practice, is at the same time a direct effort for the improvement of the vital statistics of the country. And this without referring to the fact, which is a matter of historical record, that all efforts to elevate the character of State registration services, as well as the original measures for their establishment, have been made by the medical profession.

Under the present law, the central registration office where this report is compiled comes into possession of all of the original certificates of death filed in the State within a very short time after their occurrence.

To this statement exception need be made only for the cities of Detroit and Grand Rapids, which send exact transcripts of the original certificates, made out on the same form of blanks, and also for the few non-registration townships having very sparse population (less than five persons to the square mile), which were not under the new registration law in 1899, although they have since been brought into the list of registration districts by act of the legislature in 1901. As previously stated, the few deaths returned by supervisors from these nonregistration townships are not included in this part of the report, which therefore is based solely upon certificates of deaths signed by physicians.

From the fact that each certificate bears the name and address of the attending physician, and also because in most cases the facts relative to the deaths returned are fresh in the minds of the physicians reporting them, the interval between signature and filing in the State Department never being over five weeks (if the law is strictly complied with), and usually being considerably less, the average being three weeks, it is perfectly practicable to obtain more definite information in some cases of unsatisfactory returns, and thus enable a more reliable compilation of causes of death to be made. In this respect the annual report possesses some advantages in point of correctness over the *Monthly Bulletin*, since it is not possible to delay the appearance of the latter to await the results of correspondence with physicians. This will serve to account for some differences in the original statements of deaths from certain causes, as compiled in the *Bulletins* from month to month, with the final statements based upon delayed returns and all corrections from physicians and others, as given in this report.

As an illustration of the method of obtaining more accurate statements relative to causes of death, we may submit the form of blank used for this purpose, with a list of some of the most common indefinite or otherwise unsatisfactory returns which are usually written for. The blank is shown as filled out (*boldface type*) for a specific case of one of the most numerous and annoying of the various forms of indefinite returns, namely, "heart failure."

FRED M. WARNER,
SECRETARY OF STATE.

CHARLES S. PIERCE,
DEPUTY SECRETARY OF STATE.

MICHIGAN
DEPARTMENT OF STATE
LANSING

(Vital Statistics Division.)

July 15, 1901.

DEAR DOCTOR:

Among the deaths reported to this Department for June was one certified by you from "Heart failure." Name—Henry Smith; age—24 years.

Did the heart failure result from any organic disease of the heart, or did it occur in the course of some other disease? If so, please specify fully the disease causing death.

Please answer fully, so that our compilation of causes of death may be correct. We will send you copy of MONTHLY BULLETIN in which data are presented for use of health officers and shall be pleased to place your name on our mailing list if desired.

Thanking you for the information, which may be sent in the enclosed stamped envelope, I remain,

Yours very respectfully,

CRESSY L. WILBUR, M. D.,
Chief of Division.

Dr. John Jones,
_____, Michigan.

QUESTIONS ASKED PHYSICIANS RELATIVE TO CERTAIN INDEFINITE
RETURNS OF CAUSES OF DEATHS.

BLOOD, CONSUMPTION OF. What are we to understand by the term, "consumption of the blood"? Do you mean this to be understood as anemia, or as dependent on tuberculosis? If the latter was the case, was it pulmonary tuberculosis? Please give full explanation, as we are unable to properly compile this term.

CANCER. What organ or part of the body did the cancer affect?

CANCER, ABDOMINAL. What abdominal organ did the cancer affect?

CEREBRAL. What was the cerebral disease? The term "cerebral" alone is too indefinite for satisfactory compilation.

CHILL, CONGESTIVE. Will you kindly inform us what was the nature of the congestive chill, and what part of the body the congestion affected; also, whether malarial in character or not?

CONGESTION. What organ or part of the body did the congestion affect, and did it amount to inflammation?

DISEASE, INTERNAL MALIGNANT. Was this a cancer, and, if so, what internal organ did it affect?

FEVER. What was the nature of the fever? Was it typhoid fever, malarial fever, or other definite disease?

FEVER, CONTINUED. Was this typhoid fever, or, if not, what other kind of fever?

FEVER, INFLAMMATORY. What was the nature of the fever, or what particular organ did the inflammation affect?

FEVER, TYPHO-MALARIAL. Was this typhoid fever, malarial fever, or a combination of both diseases? If the latter, was the diagnosis confirmed by blood examination?

FEVER, SURGICAL. What was the cause of the surgical fever? If it followed an operation, for what was the operation undertaken?

HEART FAILURE. Did the heart failure result from any organic disease of the heart, or did it occur in the course of some other disease? If so, please specify fully the disease causing death.

HEMORRHAGE. From what organ did the hemorrhage occur? Please give the name of the disease or nature of injury causing death.

HEMORRHAGE, PULMONARY. Was this the result of pulmonary tuberculosis?

INANITION. Was the inanition the result of any definite disease? Did it follow privation from food (starvation)?

INFANTILE. What disease caused death? The term "infantile" gives little information in regard to the nature of the disease causing death.

MARASMUS. We are in doubt in regard to this term, as the marasmus may follow a specific disease, or other definite cause. What was the disease that caused the marasmus?

MENINGITIS, CEREBRAL MENINGITIS, SPINAL MENINGITIS. Was this death caused by the disease known as cerebrospinal meningitis or was it inflammation of the meninges from some other cause, as tuberculosis, traumatism, etc., or in the course of some other disease?

NOTE.—This question relates to one of the most difficult diseases to satisfactorily classify, on the basis of ordinary registration returns, of any in the entire category of diseases. There is a specific infectious disease, epidemic cerebrospinal meningitis or cerebrospinal fever, which properly belongs to the list of infectious diseases and should be associated with them for all practical sanitary purposes, even though the Bertillon classification at present leaves it among diseases of the nervous system. On the other hand, meningitis, with or without its various qualifications, as cerebral, spinal, or cerebrospinal, is frequently reported by physicians as the immediate or contributory cause of death in the course of other diseases, with no thought of referring to the specific infectious disease. Hence it is practically impossible to accurately distinguish in the returns of meningitis just how many deaths were due to the specific disease, epidemic cerebrospinal meningitis, and how many were due to "simple meningitis." Replies to the above question, as summarized from time to time in the *Michigan Monthly Bulletin of Vital Statistics*, proved that there was no line of demarcation in the original returns whereon to found a distinction, and therefore rendered it inadvisable to attempt to make a distinction in the statistics that did not clearly exist in the statements of the physicians on the original certificates of death. There is also considerable uncertainty as to the exact diagnosis of this class of cases, spinal puncture not being very frequently resorted to as a diagnostic procedure. Moreover, the replies of physicians vary for the same classes of questions according to whether there has, or has

not, been a recent epidemic prevalence of cerebrospinal meningitis. For these reasons, the total number of deaths from meningitis of all forms is now stated, and the above question, which sought to ascertain whether there was any possibility of making a satisfactory separate compilation of these essentially different forms, has been abandoned. The same difficulty applies to the "cerebrospinal fever," corresponding to cerebrospinal meningitis, of the classification formerly used by the U. S. Census reports.

NARCOSIS, CHLOROFORM, ETHER, ETC. Was the chloroform administered for an operation, and, if so, what was the disease or injury requiring it?

NATURAL CAUSES. What was the disease causing the death? The statement "natural causes" is very indefinite and worthless for statistical purposes.

OPERATION, SHOCK FOLLOWING. What was the operation undertaken for, disease or injury? Please state fully.

OPERATION, SURGICAL. What was the operation undertaken for, disease or injury? Please state fully.

PERITONITIS. This is a somewhat indefinite return, as the cause of peritonitis should be given, if known. Was it puerperal, traumatic, etc.?

PNEUMONIA, CHRONIC. Was this tuberculous?

PNEUMONIA, TYPHOID. As the classification of this term is somewhat uncertain, we wish to inquire whether the disease was pneumonia with typhoid symptoms, or whether pneumonia occurred in the course of typhoid fever. Please state definitely.

SARCOMA. What part of the body did the sarcoma affect?

SEPTICEMIA. This is a somewhat indefinite return, as the cause of the septicemia should be given, if known. Was it puerperal [females of child bearing age only], traumatic, etc.?

SORE THROAT, ERYSIPELATOUS. Was this diphtheria?

SUFFOCATION. Was this a death from violence or from disease? If from disease, what was the nature of the disease in which the suffocation occurred? If from violence, please state its nature.

TONSILLITIS, MALIGNANT. Was not this diphtheria?

TUBERCULOSIS. Was this a case of pulmonary tuberculosis, or was it tuberculosis of some other organ or part of the body? Please state fully.

NOTE.—This question ceased to be used after January 1, 1901, when the results of the First International Revision of Paris, 1900, came into effect. Formerly deaths returned from tuberculosis (not definitely specified as to location) were compiled under general tuberculosis, not under pulmonary tuberculosis. This was incorrect, according to the information received from physicians in response to the above question, as by far the largest proportion of such cases was pulmonary tuberculosis. The change in the Bertillon classification in this respect was, therefore, very fortunate.

TUMOR. This is an indefinite return. Will you kindly inform us of the location of the tumor, and also whether it was cancerous in its nature?

TYPHUS. Was this a case of typhoid fever (enteric fever) or was it a case of true exanthematic typhus? If the latter, we shall be greatly obliged if you will give us a complete history of the case.

A tabular exhibition of the deaths and death rates by causes of death in Michigan for the year 1899 according to the extended form of the Bertillon classification may be found on the following page, and a condensed list, showing the mortality by the geographical sections of the State for the months of the year and also for the various age periods may be found in Table 18. The primary data from which these tables, as well as all of the tables and diagrams illustrating individual diseases, are derived, may be found in Table III, p. 20, Table IV, p. 40, and, for cities, in Table VII, p. 78. The list numbers used in these primary tables are the same as those employed in the exposition of the Bertillon classification contained in the Appendix of the last registration report, to which reference may conveniently be made under each title. The last revision of this classification, made at Paris in 1900 under the auspices of the International Congress of Demography and Hygiene, will not, of course, be put into use until applied to the statistics of the year 1901.

Table 17.—Deaths in Michigan during the year 1899, statistically classified by the Bert system, with rates per 100,000 estimated population.

Classification number.	Causes of death.	Number of deaths.	Death rates per 100,000.	Classification number.	Causes of death.	Number of deaths.	Death rates per 100,000.
	ALL CAUSES*.....	33,675	1,411.5	46	Other forms of insanity....	75	
	Stillbirths.....	1,386	58.1	47	Epilepsy.....	132	
				48	Convulsions.....	10	
				49	Convulsions of infants.....	464	
				50	Tetanus.....	20	
	GENERAL DISEASES.			40-41 } 51-54 }	Other nervous diseases.....	385	
1	EPIDEMIC DISEASES.....	3,287	137.8				
1	Typhoid fever.....	523	21.9	IV	DISEASES OF THE CIRCULATORY SYSTEM.....	2,776	
1a	Typho-malarial fever.....	57	2.4		Pericarditis.....	106	
2	Typhus fever.....			55	Endocarditis.....	107	
3	Scurvy.....	16	0.7	56	Organic heart disease.....	2,227	
4	Smallpox.....	6	0.3	57	Angina pectoris.....	160	
5	Measles.....	187	7.8	58	Diseases of the arteries.....	90	
6	Scarlet fever.....	144	6.0	59	Embolism.....	16	
7	Whooping cough.....	238	10.0	60	Varices, hemorrhoids.....	6	
8a	Diphtheria.....	296	12.4	61	Phlebitis.....	4	
8b	Membranous croup.....	86	3.6	62	Lymphangitis.....	5	
8c	Croup.....	53	2.2	63	Other lymphatic diseases.....	11	
9	Influenza.....	1,673	70.1	64	Hemorrhage.....	31	
10	Miliary fever.....			65	Other circulatory diseases.....	13	
11	Asiatic cholera.....			66			
12	Cholera nostras.....	1	0.0	V	DISEASES OF THE RESPIRATORY SYSTEM.....	3,990	
13	Other epidemic diseases.....	7	0.3		Diseases of the nose.....	17	
11	OTHER GENERAL DISEASES.....	5,270	220.9	67	Diseases of the larynx and thyroid.....	66	
14	Pyemia and septicemia.....	169	7.1	68	Acute bronchitis.....	471	
15	Glanders and farcy.....			69	Chronic bronchitis.....	314	
16	Malignant pustule.....			70	Broncho-pneumonia.....	287	
17	Rabies.....	1	0.0	71	Pneumonia.....	2,192	
18	Relapsing fever.....			72	Pleurisy.....	134	
19-20	Malaria.....	145	6.1	73	Congestion of the lungs.....	184	
21	Pellagra.....			74	Gangrene of the lungs.....	12	
22a	Tuberculosis.....	2,694	112.9	75	Asthma and emphysema.....	158	
22b	Lungs.....	2,098	87.9	76	Other respiratory diseases.....	155	
22c	Meninges.....	142	6.0	77			
22d	Peritoneum.....	104	4.4	VI	DISEASES OF THE DIGESTIVE SYSTEM.....	4,471	
22e	Skin.....	2	0.1		Diseases of the mouth.....	32	
22f	Other organs.....	92	3.9		Disease of the pharynx and esophagus.....	38	
23	General.....	256	10.7	78	Ulcer of the stomach.....	72	
24	Scrofula.....	29	0.8	79	Other diseases of stomach.....	478	
25a	Syphilis.....	69	2.5	80	Cholera infantum.....	1,884	
25b	Cancer.....	1,334	55.9	81	Diarrhea and enteritis.....	424	
25c	Mouth.....	18	0.8	82	Dysentery.....	178	
25d	Stomach or liver.....	481	20.2	83	Hernia and intest. obst.....	241	
25e	Intestines or rectum.....	93	3.9	84	Other diseases of the intestines.....	88	
25f	Uterus.....	160	6.7	85, 87	Acute yellow atrophy of the liver.....	9	
25g	Breast.....	92	3.9	86	Cirrhosis of the liver.....	145	
26-27	Skin.....	96	4.0	88	Other diseases of the liver.....	342	
28	Other organs.....	394	16.5	89, 90	Peritonitis.....	306	
29	Rheumatism.....	276	11.6	91, 92	Other diseases of the digestive system.....	11	
30	Diabetes.....	224	9.4	93	Iliac abscess.....	223	
31	Exophthalmic goitre.....	24	1.0	94			
32	Addison's disease.....	11	0.5	VII	DISEASES OF THE GENITO-URINARY SYSTEM.....	1,539	
33	Leukemia.....	28	1.2		Acute nephritis.....	110	
34	Anemia, chlorosis.....	194	8.1	98-100	Bright's disease.....	965	
35-37	Other general diseases.....	2	0.1	101	Other diseases of kidneys.....	95	
	Alcoholism.....	68	2.9	102	Vesical calculi.....	3	
	Chronic poisoning.....	20	0.8	103-106	Diseases of the bladder.....	100	
				107-110	Diseases of the male genital organs.....	60	
				111	Uterine tumor.....	35	
				109, 110, 112 }	Other uterine diseases.....	28	
	LOCAL DISEASES.						
III	DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SENSE.....	4,568	191.5				
38	Encephalitis.....	145	6.1				
39a	Simple meningitis.....	231	9.7				
39b	Cerebrospinal meningitis.....	820	34.4				
42	Apoplexy.....	1,225	51.3				
43	Cerebral softening.....	163	4.3				
44	Paralysis.....	842	35.3				
45	Gen'l paralysis of insane.....	116	4.9				

* Including stillbirths.

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Table 17.—Concluded.—Deaths in Michigan, 1899, statistically classified.

Classification number.	Causes of death.	Number of deaths	Death rates per 100,000.	Classification number.	Causes of death.	Number of deaths	Death rates per 100,000.
113	Ovarian tumor.....	29	1.2	142b	Asphyxia.....	2	0.1
107, 108	Other diseases of the female genital organs.....	54	2.3	142c	Strangulation.....	46	1.9
114, 115				142d	Drowning.....	9	0.4
VIII	PUERPERAL DISEASES.....	428	17.9	142e	Firearms.....	50	2.1
116-118	Accidents of pregnancy.....	138	5.8	142f	Cutting instruments.....	15	0.6
123-124				142g	Fall from height.....	1	0.0
119,	Puerperal septicemia.....	221	9.3	142h	Crushing.....	1	0.0
120-122	Puerperal albuminuria.....	69	2.9	142i	Other methods.....	13	0.5
IX	DISEASES OF THE SKIN AND CELLULAR TISSUE.....	267	11.2	143	<i>B. Accidents</i>	1,579	66.2
125	Erysipelas.....	97	4.1	144	Fractures.....	179	7.5
126	Gangrene.....	119	5.0	145a	Dislocations.....	22	0.9
127	Anthrax.....	33	1.4	145b	Gunshot.....	66	2.8
128	Phlegmon, acute abscess.....	18	0.8	145c	Lightning.....	15	0.6
129	Other diseases of the skin.....			145d	Mining accidents.....	48	2.0
X	DISEASES OF THE LOCOMOTOR SYSTEM.....	75	3.1	145e	Railroad accidents.....	177	7.4
130	Pott's disease.....	32	1.3	145f	Vehicles and horses.....	64	2.7
131	Chronic or cold abscess.....	1	0.0	146a	Fire (burn).....	120	5.0
133	White swellings.....	6	0.3	146b	Hot liquid (Scald).....	30	1.3
132,	Other diseases of the locomotor system.....	36	1.5	146c	Corrosive substance.....	1	0.0
134-136				147a	Sunstroke.....	9	0.4
XI	MALFORMATIONS.....	170	7.1	147b	Freezing.....	11	0.5
137	Malformations.....	170	7.1	148	Accidental drowning.....	211	8.8
XII	DISEASES OF INFANCY.....	1,396	58.5	149	Starving.....	3	0.1
138a	Congenital debility.....	832	34.9	150	Noxious gases.....	17	0.7
138b	Premature birth.....	522	21.9	151	Other accidental poisons.....	65	2.7
139	Want of care.....	9	0.4	152a	Other accidents.....	541	22.7
140	Other diseases of infancy.....	33	1.4				
XIII	DISEASES OF OLD AGE.....	676	28.3	152b	<i>C. Homicide</i>	28	1.2
141	Senile debility.....	676	28.3		Homicide.....	28	1.2
XIV	VIOLENCE.....	1,796	75.3	XV	CAUSES ILL-DEFINED.....	1,580	66.2
142a	<i>A. Suicide</i>	189	7.9	154	Exhaustion, cachexia, debility.....	373	15.6
	Poison.....	53	2.2	155a	Fever, inflammation.....	44	1.8
				155b	Dropsy.....	277	11.6
				156	Heart failure.....	346	14.5
				157	Asphyxia, cyanosis.....	8	0.3
				158	Sudden death.....	3	0.1
				159	Abdominal tumor.....	29	1.2
				161	Other tumors.....	16	0.7
					Unknown or not specified causes.....	484	20.3

Examination of the deaths recorded in Table 17 will show that many of the causes are quite insignificant as regards number, and that very little sacrifice of statistical completeness would be made by their entire omission or rather inclusion under some more general title. It will also be much more convenient to study an abbreviated list, as the various relations of the mortality in the geographical sections can thus be shown without an undue sacrifice of space. While the number of titles should be abbreviated, the general outline of the classification in its extended form should be scrupulously preserved, so that comparisons may be accurately made. This cannot be done when certain diseases are left out of their proper positions by being relegated to the unclassified list at the end of the table, as the proportion of the preceding groups is thereby destroyed. Hence the following table was devised for the purpose of showing the general relations of the causes of death in the State during the year in a correct manner, but greatly abridged from the longer classification.

Table 18.—Causes of death in Michigan, by months and age

Line number.	Causes of death, 1899.	Total deaths, 1899.	Rate per 100,000 estimated population.	Months of death, 1899.											
				Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	
1	ALL CAUSES.....	33,675	1,411.5	3,269	3,828	3,354	3,054	2,504	2,242	2,439	2,788	2,753	2,479	2,366	2
2	Stillbirths (included in above)...	1,386	58.1	141	124	131	124	107	102	112	105	91	119	110	
3	Typhoid fever.....	580	24.3	28	26	37	35	27	30	39	51	76	116	66	
4	Measles.....	187	7.8	9	16	11	23	15	23	10	9	2	12	24	
5	Scarlet fever.....	144	6.0	12	8	13	6	7	8	9	10	8	20	18	
6	Whooping cough.....	238	10.0	15	20	22	17	14	15	19	34	26	15	17	
7	Diphtheria and croup.....	435	18.2	40	42	24	21	24	16	17	23	32	60	62	
8	Influenza.....	1,673	70.1	400	690	325	143	33	22	11	5	8	8	8	
9	Other epidemic diseases.....	30	1.3	3	4	3	6	1	2	2	1	3	1	2	
10	Malaria.....	145	6.1	9	10	7	13	12	2	10	10	21	31	11	
11	Tuberculosis of lungs.....	2,098	87.9	169	207	215	198	211	143	152	154	144	163	162	
12	Other forms of tuberculosis.....	596	25.0	58	56	76	51	49	63	38	49	56	26	36	
13	Cancer.....	1,334	55.9	96	114	111	119	95	104	110	111	124	109	123	
14	Rheumatism.....	276	11.6	22	19	28	26	36	24	15	22	24	23	12	
15	Diabetes.....	224	9.4	24	27	15	21	16	15	15	19	17	16	21	
16	Other general diseases.....	597	25.0	43	45	58	59	55	42	43	70	58	50	38	
17	Simple meningitis.....	231	9.7	22	24	29	26	16	22	19	19	12	16	14	
18	Cerebrospinal meningitis.....	820	34.4	41	76	120	182	127	55	52	44	42	26	34	
19	Cerebral congest'n and hem.....	1,225	51.3	117	125	112	114	86	92	94	86	92	105	98	
20	Paralysis.....	842	35.3	86	82	78	77	66	56	56	63	76	57	69	
21	Convulsions of infants.....	464	19.4	49	51	45	52	44	28	38	38	26	36	31	
22	Other nervous diseases.....	986	41.3	104	95	89	76	93	73	75	85	79	80	73	
23	Organic heart disease.....	2,227	93.3	212	199	171	207	191	178	169	170	163	161	196	
24	Other circulatory diseases.....	549	23.0	58	48	46	50	44	41	60	33	36	40	45	
25	Bronchitis.....	785	32.9	109	119	114	90	59	38	27	31	33	43	55	
26	Broncho-pneumonia.....	287	12.0	27	51	64	34	26	7	4	8	5	14	19	
27	Pneumonia.....	2,192	91.9	337	488	350	272	149	70	44	49	57	102	117	
28	Pleurisy.....	134	5.6	16	22	20	14	10	11	5	8	8	5	8	
29	Other respiratory diseases.....	592	24.8	74	71	75	60	39	31	40	22	37	40	49	
30	Stomach diseases.....	550	23.1	37	53	37	43	55	45	50	52	48	44	39	
31	Infantile diarrhea.....	1,884	79.0	48	41	46	54	51	167	257	482	485	138	60	
32	Diarrhea and enteritis.....	424	17.8	26	29	23	23	27	20	37	70	76	36	27	
33	Dysentery.....	178	7.5	3	2	6	6	3	3	24	43	57	24	4	
34	Liver diseases.....	496	20.8	30	39	46	46	45	34	46	48	36	37	39	
35	Peritonitis.....	306	12.8	23	35	31	28	24	19	22	33	19	32	22	
36	Ilac abscess.....	223	9.3	20	15	22	26	21	15	16	16	13	23	20	
37	Other digestive diseases.....	410	17.2	35	26	35	26	44	28	27	34	36	45	37	
38	Bright's disease.....	965	40.4	98	78	89	75	83	79	84	70	65	87	81	
39	Other genito-urin'ry diseases.....	574	24.1	66	38	65	49	50	40	36	47	43	42	49	
40	Puerperal diseases.....	428	17.9	35	40	49	42	43	39	30	37	19	31	21	
41	Skin diseases.....	267	11.2	34	27	36	19	19	17	21	18	14	27	18	
42	Diseases locomotor system.....	75	3.1	7	5	4	6	8	8	7	10	2	6	8	
43	Malformations.....	170	7.1	9	18	20	15	12	13	19	13	9	16	12	
44	Diseases of infancy.....	1,396	58.5	119	132	135	105	130	82	111	136	138	99	102	
45	Diseases of old age.....	676	28.3	68	91	63	56	49	36	42	51	54	65	56	
46	Suicide.....	189	7.9	18	9	11	17	19	18	22	17	12	17	16	
47	Accidents.....	1,579	66.2	110	103	103	123	121	148	169	176	160	120	124	
48	Homicide.....	28	1.2		1	1	1	6	1	2	3	4	6	1	
49	Causes ill-defined.....	1,580	66.2	162	187	143	168	132	113	127	103	113	90	112	

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for the State and geographical sections, 1899. STATE.

Ages of decedents, 1899.

Ages in years under five.					Ages by five-year periods.																	Unk.	Line number.
0.	1.	2.	3.	4.	0 to 4.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 +		
7,787	1,222	611	392	272	10,234	846	658	1,030	1,313	1,206	1,079	1,162	1,145	1,141	1,223	1,513	1,693	2,079	2,272	2,155	2,852	84	1
1,386					1,386																		2
5	5	4	7	3	22	32	61	88	87	68	59	42	31	22	15	19	10	15	2	4	3	3	3
56	56	18	7	7	138	22	7	8		3	1	4	2	1								1	4
11	20	25	21	10	87	38	10	5	2	1	1											5	6
10	50	20	12	8	231	7																6	7
28	58	61	62	43	253	117	35	16	7	2	1	2		1								1	7
27	38	13	10	7	295	20	16	27	29	41	25	33	35	40	55	77	119	134	206	197	322	2	8
9	2	1	2	2	16	1	3		1	1	1	2		1		2	1					1	9
9	6	2	3	6	26	7	8	10	11	6	7	4	4	11	5	5	8	9	10	6	8	10	10
16	7	5	1	6	35	11	39	195	351	310	237	192	161	121	102	79	85	73	49	35	20	3	11
64	25	22	14	7	132	27	23	49	60	62	45	39	31	24	20	30	18	14	11	5	3	3	12
1		1	2	2	6	4	1	7	13	18	37	50	87	122	132	172	165	192	133	97	86	3	13
1		1	1		3	17	15	20	7	7	10	9	8	11	19	22	18	34	33	24	19	1	14
1		1	2	2	6	11	13	15	9	5	5	9	11	8	22	18	25	26	15	19	7	1	15
101	14	5	3	3	126	13	12	19	41	48	30	35	53	37	32	41	29	31	18	17	15		16
83	37	12	9	2	143	16	7	5	9	10	5	8	8	3	3	6	1	2	1			4	17
163	78	63	50	41	399	107	74	74	42	22	21	25	13	12	4	8	7	11	2	1	1	1	18
55	18	6	4	4	87	12	8	8	13	12	18	26	36	50	65	115	111	151	173	172	164	4	19
5	3	1	1		10	2	2	3	3	5	9	15	14	18	37	75	73	104	143	152	175	2	20
499	27	14	8	2	460	4																21	
79	26	18	8	4	135	25	35	38	35	41	32	46	46	63	68	60	63	92	89	69	45	4	22
136	7	2	1	2	142	21	25	28	21	42	44	65	68	83	137	162	221	171	338	300	253	6	23
21	2		1	3	27	11	14	9	18	15	14	23	36	23	20	43	39	58	82	65	51	1	24
296	75	21	4	10	409	7	4	8	5	6	6	8	7	11	12	30	25	45	56	64	81	1	25
129	38	24	11	8	210	5	1	4	1		1	2	2	3	1	4	3	8	3	10	13	17	26
319	140	62	33	16	770	44	34	56	89	48	67	91	72	89	90	115	136	133	127	136	5	27	
4	5	2	2		13		4	7	11	2	10	13	12	9	4	6	17	10	7	4	5	28	
113	22	9	8	6	158	17	6	12	19	13	20	16	21	19	18	29	39	52	63	36	52	2	29
117	12	5	4	2	140	6	5	11	8	14	9	11	20	31	28	37	43	50	43	48	3	30	
1,423	295	108	36	16	1,880																	31	
					24	11	9	10	11		14	14	13	14	19	22	21	57	59	61	65	32	
28	18	9	9	2	66	1	1	1	1		1	3	1	4	6	6	8	10	16	25	28	33	
16	2	2	3	2	25	4	5	5	11	10	14	21	39	36	43	40	50	57	65	41	30	34	
19	8	4	3	1	35	29	16	17	41	27	20	24	15	9	12	19	9	14	10	6	2	1	35
1	1		3	1	6	30	27	41	28	22	17	3	15	10	1	5	4	8	1	2	3	36	
79	10	5	8	5	98	18	9	15	7	13	19	9	11	17	16	21	26	39	34	34	23	1	37
10	1	1	1	3	16	12	18	15	25	38	35	38	47	60	77	100	113	107	111	81	68	4	38
24	7	2	1	4	38	12	5	12	25	27	23	28	33	27	27	28	32	50	54	72	91	39	
								28	96	94	82	74	51	3								40	
36	2	2	2		42	1	1	4	8	6	6	8	2	7	9	9	26	27	16	43	50	2	41
9	5	2		2	18	6	7	8	2	6	2	1	1	4	3	4	1	5		3	4	42	
157	9	1	2		169		1															43	
1,359	25	7	2	2	1,395	1																44	
													1		1	1	7	17	68	110	469	2	45
								7	15	12	16	18	18	26	13	16	12	12	11	4	7	2	46
65	45	42	36	22	210	87	87	133	128	116	93	106	88	78	62	63	68	54	54	54	76	22	47
1		1	1	1	4		1	3	3	3	3	2	2	1	3	1			1	1		48	
332	23	7	4	5	371	13	7	10	21	19	2	23	29	44	39	49	76	116	148	167	421	8	49

Table 13.—Continued.—Causes of death in Michigan, by months and ages, 1899

Line number.	Causes of death, 1899.	Total deaths, 1899.	Rate per 100,000 estimated population.	Months of death, 1899.											
				Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1	ALL CAUSES.....	3,322	1,528.8	326	275	311	337	289	211	278	325	324	212	198	236
2	Stillbirths (included in above)...	199	91.6	22	14	20	19	11	9	23	14	17	17	14	19
3	Typhoid fever.....	90	41.4	3	3	8	12	10	9	7	4	11	13	5	5
4	Measles.....	29	13.3	3	4	1	2	1	4	3	1	1	3	1	5
5	Scarlet fever.....	32	14.7		1	2		3	3	2	2		3	5	11
6	Whooping cough.....	58	26.7	3	3	6	6	6	3	3	6	9	3	3	7
7	Diphtheria and croup.....	21	9.7	4	4	2	2	1	1			2	1	3	1
8	Influenza.....	67	30.8	18	21	17	4	2	1			1	3		
9	Other epidemic diseases.....	2	0.9						1			1			
10	Malaria.....	1	0.5								1				
11	Tuberculosis of lungs.....	202	93.0	19	14	25	23	28	11	17	14	16	12	11	12
12	Other forms of tuberculosis.....	86	39.6	11	6	11	8	5	8	8	7	8	4	7	3
13	Cancer.....	76	35.0	6	9	7	6	6	4	3	7	9	2	7	10
14	Rheumatism.....	15	6.9	2	1	3		2	1	1	2				3
15	Diabetes.....	7	3.2	1			1	1	2	1				1	
16	Other general diseases.....	52	23.9	5	6	4	8	3	1	4	5	5	3	3	5
17	Simple meningitis.....	40	18.4	3	6	4	2	2	5	5	4	4	2	2	1
18	Cerebrospinal meningitis.....	171	78.7	1	10	40	42	29	12	17	5	3	4	5	3
19	Cerebral congest'n and hem.....	47	21.6		9	4	4	4	2	2	5	6	5	4	2
20	Paralysis.....	27	12.4	2	1	1	2	2	2	3	4	5	2	1	2
21	Convulsions of infants.....	75	34.5	8	9	7	11	8	6	6	2	3	7	3	5
22	Other nervous diseases.....	58	26.7	9	3	3	13	9	1	4	5	3	3		5
23	Organic heart disease.....	118	54.3	21	8	4	13	6	12	14	11	10	5	7	7
24	Other circulatory diseases.....	35	16.1	4	5	4	4	2	1	2	1	5	2	4	1
25	Bronchitis.....	110	50.6	16	11	12	17	12	8	5	2	7	4	11	5
26	Broncho-pneumonia.....	53	24.4	5	8	9	4	12	3	3	1		2	1	5
27	Pneumonia.....	219	100.8	29	31	21	31	22	16	8	7	5	16	12	21
28	Pleurisy.....	11	5.1	3	1	1			1	1	2			2	
29	Other respiratory diseases.....	43	19.8	9	3	3	5	4	1	7	3	2	1	3	2
30	Stomach diseases.....	40	18.4	7	3		9	5	3	6		3	2	1	1
31	Infantile diarrhea.....	330	151.9	11	7	9	13	10	10	30	106	96	21	3	14
32	Diarrhea and enteritis.....	24	11.0	1				2	1	4	8	7	1		
33	Dysentery.....	9	4.1			1	1			2	1	3	1		
34	Liver diseases.....	23	10.6	2		5	1	1		2		1	5	2	4
35	Peritonitis.....	29	13.3	2	2	4	2	3	4	3	2	2	2	2	1
36	Iliac abscess.....	25	11.5	2		2	7	4	1	1	1	2	3	1	1
37	Other digestive diseases.....	42	19.3	3	5	3	2	2	2	4	5	4	3	3	6
38	Bright's disease.....	57	26.2	8	1	6	3	10	7	3	5	1	5	4	4
39	Other genito-urinary diseases.....	34	15.6	5	1	6	2	2	3	1	2	4	1	3	4
40	Puerperal diseases.....	46	21.2	4	5	6	6	3	5	3	4	1	3		6
41	Skin diseases.....	11	5.1	2	1	1			1	1	2		1	1	1
42	Diseases locomotor system.....	6	2.8	1	1				1				2	1	
43	Malformations.....	17	7.8	1	1	2		1		1	1	1	4	2	3
44	Diseases of infancy.....	210	96.6	23	21	17	17	21	10	18	19	14	12	22	16
45	Diseases of old age.....	24	11.0	2	3	1	1	3	1	5	2	1	1	1	3
46	Suicide.....	17	7.8	3			5	2		1	1	3			2
47	Accidents.....	250	115.0	17	14	16	10	19	24	29	28	32	17	23	21
48	Homicide.....	2	0.9										1		1
49	Causes ill-defined.....	182	83.8	26	18	13	19	10	10	15	23	16	10	14	8

CAUSES OF DEATH

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the State and geographical sections, 1899. I.—Upper Peninsular Counties.

Ages of decedents, 1899.

Ages in years under five.					Ages by five-year periods.																	Unk.	Line number.
0.	1.	2.	3.	4.	0 to 4.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 to 84.		
1,157	192	81	57	50	1,537	143	93	95	165	169	122	171	132	105	110	86	77	92	83	69	60	13	1
199					199																		2
	1		2	1	4	9	12	8	16	16	9	6	6			1	1					1	3
8	13	2		2	25	3	1																4
3	4	6	5	3	21	10	1																5
39	9	4		5	57	1																	6
1	3	1	5	4	14	5	2																7
17	1	2	2		22	1	5	1	3	3	3	3			3	2	5	5	5	4	2		8
							1		1														9
																							10
4	2		2		10	4	11	16	32	35	17	20	17	15	9	4	6	1	3	1	1		11
12	8	3	8	3	34	7	6	4	6	5	5	6	4	2	3	1	1	1	1				12
			1					1	3	2	2	9	6	9	13	10	7	7	2	3	1		13
						1		3	1		2	1	1	1	3	1		1					14
							1	1					1		2			1					15
3	1			1	5	2	2	1	3	9	2	5	10	1	4	5	2						16
																							17
14	6	2	2	1	25	3	1	1	2	3		2		1	2								18
17	10	9	9	11	56	36	15	14	17	6	8	11	5	1			1	1					19
3	1				4				1			2	3	4	3	7	3	5	5	8	1		20
1					1		1		1			3		1	1	4	4	2	3	4	2		21
61	7	5	1		74	1																	22
8	4	2	1		15	2	6	3	3	2	3	5	5	3	2	2		1	3	1	1		23
18	1	1			20		6	2	1	3	5	12	4	8	10	4	10	15	9	8	1		24
4	1				5	1	1		2	1	2	5	2	3	1	3	1	4	3	1			25
57	16	2	1	2	78				1			1	1	1	2	2	1	9	4	6	4		26
25	7	5	4	3	44	2											1	1		2	2		27
42	21	12	5		80	8	2	7	10	11	13	14	17	16	11	8	6	3	7	3	3		28
	2	1	1		4			1	2			1	2						1				29
10	4		1	1	16	2	1	1	2		1		2	2		2	4	4	5	1			30
13	1	1			15	1	1	2	1		1		2	1	6	2	2	1	3	1	1		31
263	50	10	3	3	329	1	1	1	1		1	3	1	1	2	2		4	1	1	4		32
4	1	1			6				1	2	3	1	4	4	3		1		1		1		33
2	1				3	8	1		7		1	2	2			4							34
12	3	1	1	1	18	3		1	3	3	1	1	2	1	1			2	5	1	1		35
																							36
2			1	2	5	4		1	3	2	1	2		4	5	8	6	5	6	2	3		37
								2	8	12	7	11	6						1	1	4	1	38
											1	1	1							3			39
															2	1							40
2	1			1	4									1									41
17					17																		42
203	3	2		1	210																		43
																			1	3	5	15	44
																							45
6	3	5	3	1	18	16	11	14	29	41	20	32	21	13	12	5	5	3	1	1			46
																							47
87	7	2		2	98	2		3	1	4	3	3	4	7	3	4	7	10	11	7	14	1	48

VITAL STATISTICS OF MICHIGAN, 1899

Table 18.—Continued.—Causes of death in Michigan, by months and age

Line number.	Causes of death, 1899.	Total deaths, 1899.	Rate per 100,000 estimated population.	Months of death, 1899.											
				Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1	ALL CAUSES.....	3,580	1,301.6	313	377	350	325	311	213	261	336	332	261	245	
2	Stillbirths (Included in above)...	132	48.0	16	17	12	12	5	8	12	12	11	8	11	
3	Typhoid fever.....	61	22.2	1	1	4	4	4	5	3	5	7	17	6	
4	Measles.....	43	15.6		1		7	6	7	3	5		4	4	
5	Scarlet fever.....	29	10.5	3		2	2		1	1	2		8	5	
6	Whooping cough.....	32	11.6	2	2	1			2	3	7	4	1	4	
7	Diphtheria and croup.....	35	12.7	8	8	3	1	5		2		3	2	2	
8	Influenza.....	179	65.1	38	68	34	21	7	4	2	2		1	1	
9	Other epidemic diseases.....	2	0.7		1			1							
10	Malaria.....	19	6.9	2	2		1	2	1	2	2	1	3	2	
11	Tuberculosis of lungs.....	210	76.4	13	18	17	19	16	22	10	17	15	24	12	
12	Other forms of tuberculosis.....	59	21.5	7	4	9	6	2	6	1	4	8	3	5	
13	Cancer.....	123	44.7	8	8	7	4	13	14	8	11	11	13	14	
14	Rheumatism.....	24	8.7	2		3	2	3	2	2		3	3	1	
15	Diabetes.....	15	5.5	1	2	2	1	2	1	1	1	1	1	1	
16	Other general diseases.....	60	21.8	3	2	9	13	6	3	3	5	2	8	2	
17	Simple meningitis.....	18	6.5	2		4	2	1		4	2	1	1		
18	Cerebrospinal meningitis.....	134	48.7	4	15	25	31	24	9	7	7	3	3	5	
19	Cerebral congest'n and hem.....	87	31.6	6	6	4	9	10	8	9	6	8	6	10	
20	Paralysis.....	73	26.5	5	4	5	7	10	2	12	7	4	3	4	
21	Convulsions of infants.....	52	18.9	8	6	8	5	1	3	8	5	2	3	1	
22	Other nervous diseases.....	121	44.0	10	10	15	7	13	9	7	16	8	12	9	
23	Organic heart disease.....	169	61.4	14	16	11	15	21	16	8	14	12	10	17	
24	Other circulatory diseases.....	40	14.5	2	4	3	2	3	4	8	2	3	3	4	
25	Bronchitis.....	78	28.4	13	10	12	6	6	3	3	3	6	1	4	
26	Broncho-pneumonia.....	31	11.3	2	8	4	4	3	2	1	2	1	3	1	
27	Pneumonia.....	198	72.0	30	37	33	26	12	6	3	6	2	12	17	
28	Pleurisy.....	18	6.5	3	1	2		4	1	2		3			
29	Other respiratory diseases.....	61	22.2	9	5	11	7	6		5		3	2	6	
30	Stomach diseases.....	78	28.4	8	6	3	5	9	5	7	10	5	6	9	
31	Infantile diarrhea.....	253	92.0	4	8	5	6	7	4	16	74	92	18	8	
32	Diarrhea and enteritis.....	42	15.3	1	4	5	1	3	3	1	9	10	1	3	
33	Dysentery.....	18	6.5	1		1	1	1		1	6	5			
34	Liver diseases.....	47	17.1	4	5	4	3	1	4	5	3	7	2	5	
35	Peritonitis.....	30	10.9	5	2	2	4	3	2		4	2	4		
36	Iliac abscess.....	23	8.4	3	1	1		2	1	2	1	1	4	6	
37	Other digestive diseases.....	39	14.2	1	1	4	2	4	2	6	4	4	2	4	
38	Bright's disease.....	71	25.8	3	7	7	4	6	5	10	4	10	6	4	
39	Other genito-urinary diseases.....	42	15.3		3	6	3	4	2	2	4	5	4	4	
40	Puerperal diseases.....	56	20.4	3	8	7	7	5	4	4	4	1	6	3	
41	Skin diseases.....	24	8.7	1	2	4	3	3	1	1	2	2	2	1	
42	Diseases locomotor system.....	7	2.5	1	1		1	1	1	1	1				
43	Malformations.....	21	7.6	2	2	2	4	2	1	1	2		3	1	
44	Diseases of infancy.....	153	55.6	7	15	12	12	13	10	11	16	20	17	7	
45	Diseases of old age.....	75	27.3	8	7	7	8	6		5	8	7	4	7	
46	Suicide.....	19	6.9	1	1	1	1	3	2	3	2		1	2	
47	Accidents.....	232	84.4	21	13	19	15	24	15	30	25	24	16	17	
48	Homicide.....	2	0.7										1		
49	Causes ill-defined.....	245	89.1	27	34	20	31	28	12	25	14	15	9	16	

CAUSES OF DEATH

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for the State and geographical sections, 1899. II.—Northern Counties.

Ages of decedents, 1909.																							
Ages in years under five.					Ages by five-year periods.																		Line number.
0.	1.	2.	3.	4.	0 to 4.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 +	Unk.	
979	184	73	60	32	1,328	119	84	143	155	125	117	124	126	121	130	148	140	180	187	152	183	18	1
132					132																		2
	1				1	7	2	10	11	5	6	5	3	2	2	3	2	1		1			3
12	13	2	5	1	33	7		1	1	1		1											4
4	5	2	6	1	18	9	1		1														5
19	9	1	3		32																		6
8	1	3	1	3	16	8	6	4														1	7
36	10	5	2	3	56	1	1	9	2	7	3	6	3	7	5	5	9	10	20	16	19		8
1			1		2																		9
1	1		1	1	4	2		1	2	2	1		1	1	1	1	1	1	1				10
2	3				5	2		26	38	31	22	20	15	10	10	10	8	6	1	4	1	1	11
9		2	1	1	13	4	4	5	6	6	5	2	2	2	1	2	5			1	1		12
					3	2	5		2	1	4	4	16	17	10	17	11	13	15	10	4		13
								2	4		1	2	1	1	1	2	2	3	1	1			14
								2	4		1	2	1	1	1			2	1				15
11	2	1			14	3		2	5	4	2	2	8	7	2	4	3	3		1			16
8	3		2		13	1	1	2					1										17
26	17	10	10	7	70	12	16	15	3	3	5	3	1	2	2	2	1	1					18
11	3			1	15	2	1		3	1	1	2	2	2	7	8	3	10	10	10	8	2	19
	2				2			1	1	1		2	1	2	4	5	7	18	9	10	10		20
40	7	1	1	1	50	2																	21
15	3	3	1		22	5	9	3	5	5	5	4	7	3	13	10	2	12	7	7	2		22
11	1	1			13	4	1	7		5	6	4	5	9	11	13	21	19	31	14	6		23
					3			3	2		1	2	2	2	1	6	5	6	5	2			24
35	13	1		1	50		2				1				3		5	2	7	5	2	1	25
16	3	2			21		1	2			1		1	1	1		2	1	1				26
63	14	7	3	1	88	5	1	4	9	3	2	10	8	4	12	6	12	6	11	10	5	2	27
1					1		1	1	2	1	2	2	2	1	2	3							28
19	2	2	2	1	26	2	1	1	1	2	1	3	2	1	4	3	1	2	4	4	3		29
28	1	1	2	1	33	2	1	2		3		3	1	4	3	3	6	4	8	2	2	1	30
177	58	10	4	4	253																		31
						5	3	1		2	2	3		3	3		1	8	4	3	4		32
4	1	1		1	7							1	1	1	2		3	2	1		1		33
					2	1	1	3	2	3	1	1	6	2	7	5	3	2	4	2	2		34
2			1		3	3	1	2	6	3	1	3			2	4			1		1		35
			3		3	2	5	3	2	2	2		3	1									36
7		1	1		9					1	2		2	2	1	7	2	8	3	1	1		37
				1	1	1	5		4	5	5	2	2	6	5	7	5	6	7		5	2	38
1					1	2	1	1	3	3	1	2	1	3	1		1	5	5	4	8		39
								6	12	10	11	11	6										40
3					3						1			1		1	4	4	3	6		1	41
2					2	1		1				1	1					1					42
19	1				20			1															43
150	2	1			153																		44
																1		3		9	18	44	45
16	4	14	8	3	45	17	15	18	28	10	17	17	15	12	10	8	4	5	1	1	1	1	46
							1									1				1	1	6	47
88	4	2	2		96	3		2		1	3	6	5	7	6	9	8	11	18	19	48	3	48

VITAL STATISTICS OF MICHIGAN, 1899

Table 18.—Continued.—Causes of death in Michigan, by months and ages.

Line number.	Causes of death, 1899.	Total deaths, 1899.	Rate per 100,000 estimated population.	Months of death, 1899.											
				Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1	ALL CAUSES.....	5,793	1,272.2	504	698	591	513	491	381	390	508	500	408	405	404
2	Stillbirths (included in above)...	245	53.8	30	25	26	25	22	14	18	14	15	19	18	19
3	Typhoid fever.....	123	27.3	4	9	12	6	3	5	6	9	19	21	22	7
4	Measles.....	40	8.8	4	10	6	5	7	1	2	1	1	1	1	2
5	Scarlet fever.....	17	3.7	2	1	2	2	2	2	2	2	2	2	4	2
6	Whooping cough.....	48	10.5	4	3	4	4	4	4	3	10	3	4	2	3
7	Diphtheria and croup.....	58	12.7	4	2	4	1	2	4	5	4	4	8	9	11
8	Influenza.....	325	71.4	62	145	70	28	4	6	1	2	2	3	4	4
9	Other epidemic diseases....	5	1.1	1	1	1	2	2	1	1	1	1	1	1	1
10	Malaria.....	37	8.1	4	4	2	3	4	1	2	2	4	6	4	3
11	Tuberculosis of lungs.....	379	83.2	32	35	36	29	34	23	24	39	28	37	23	35
12	Other forms of tuberculosis.	112	24.6	8	15	6	12	13	14	9	6	10	4	6	9
13	Cancer.....	232	50.9	17	19	21	20	23	17	28	20	12	16	26	13
14	Rheumatism.....	49	10.8	3	3	7	6	5	2	1	4	8	1	3	2
15	Diabetes.....	36	7.9	3	4	2	4	4	3	2	5	3	4	5	1
16	Other general diseases.....	88	19.3	7	7	7	9	9	6	9	9	10	7	3	5
17	Simple meningitis.....	31	6.8	4	4	7	2	1	2	2	3	2	2	2	2
18	Cerebrospinal meningitis....	138	30.3	8	12	12	39	20	11	6	6	10	5	7	2
19	Cerebral congest'n and hem.	216	47.4	14	21	18	18	17	17	18	18	16	16	20	23
20	Paralysis.....	134	29.4	7	15	12	17	7	13	4	13	11	7	15	13
21	Convulsions of infants.....	83	18.2	5	10	8	10	9	5	3	8	9	6	8	2
22	Other nervous diseases.....	139	30.5	18	9	11	7	18	9	16	8	13	9	17	4
23	Organic heart disease.....	370	81.3	30	25	30	35	37	26	34	19	20	19	37	49
24	Other circulatory diseases...	95	20.9	11	5	9	6	11	7	7	5	5	9	9	11
25	Bronchitis.....	114	25.5	11	24	18	10	14	7	2	4	6	6	5	7
26	Broncho-pneumonia.....	39	8.6	5	5	10	5	2	2	2	2	3	3	5	5
27	Pneumonia.....	384	84.3	63	92	69	48	30	10	5	9	6	14	15	23
28	Pleurisy.....	15	3.3	3	1	4	2	1	3	3	1	1	1	1	1
29	Other respiratory diseases...	107	23.5	14	12	16	13	7	4	5	3	11	8	6	8
30	Stomach diseases.....	69	19.5	4	10	7	7	8	10	5	7	7	8	7	9
31	Infantile diarrhea.....	318	69.8	7	8	7	7	11	19	30	96	99	19	11	4
32	Diarrhea and enteritis.....	71	15.6	3	5	3	2	3	3	5	12	17	7	9	2
33	Dysentery.....	34	7.5	1	1	1	1	1	1	5	7	13	7	7	7
34	Liver diseases.....	85	18.7	7	7	4	5	9	4	6	16	7	6	9	5
35	Peritonitis.....	57	12.5	5	4	2	9	4	6	9	6	6	4	4	2
36	Iliac abscess.....	47	10.3	4	9	5	2	5	3	4	2	4	4	5	4
37	Other digestive diseases.....	68	14.9	2	4	4	3	11	5	4	8	6	10	6	5
38	Bright's disease.....	150	32.9	13	13	10	10	15	11	12	15	11	13	13	14
39	Other genito-urinary diseases	101	22.2	11	7	10	7	9	12	4	3	8	12	8	10
40	Puerperal diseases.....	80	17.6	4	4	9	8	12	8	5	7	5	7	4	7
41	Skin diseases.....	45	9.9	3	5	6	3	3	3	3	2	3	10	3	4
42	Diseases locomotor system..	22	4.8	2	1	2	1	4	3	1	3	1	1	3	1
43	Malformations.....	21	4.6	2	3	4	2	2	4	2	2	1	3	1	1
44	Diseases of infancy.....	212	46.6	13	19	28	25	16	10	12	22	26	13	14	14
45	Diseases of old age.....	121	26.6	9	23	10	9	11	6	7	11	7	9	10	9
46	Suicide.....	26	5.7	3	2	1	1	1	1	8	1	1	4	1	3
47	Accidents.....	288	63.2	15	24	17	23	19	31	30	40	21	25	17	26
48	Homicide.....	5	1.1	1	1	1	1	3	1	1	1	1	1	1	1
49	Causes ill-defined.....	294	64.6	25	33	33	27	27	34	25	23	25	12	9	21

CAUSES OF DEATH

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for the State and geographical sections, 1899. III.—Central Counties.

Ages of decedents, 1899.																								
Ages in years under five.					Ages by five-year periods.																		Line number.	
0.	1.	2.	3.	4.	0 to 4.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 +	Unk.		
1,340	209	114	71	44	1,778	155	135	221	222	213	194	179	199	181	200	258	284	356	402	346	455	15		
245					245																		2	
2		1	3	1	7	5	15	26	16	9	14	7	8	2	2	4	2	4				1	1	3
12	6	4		3	25	5	4	2		2		1	1											4
1	3	4	2		10	3	3	1																5
27	11	3	5		46																			6
6	9	4	5	4	28	21	3	4	2															7
42	7	1	4	1	55	3	3	2	3	12	8	6	5	9	16	13	20	18	55	45	57			8
3				1	4											1								9
2	1	1		3	7	2	3	4	2		1	2		3	2	1	2	3	2	1	2	2		10
3	1				4		9	34	71	60	43	38	27	21	10	12	14	14	15	3	3	1		11
14	4	6	1		25	6	5	9	12	18	6	2	8	3	1	8	2	2	2	2				12
1		1			2	2		1		5	10	10	14	14	26	25	36	36	22	13	15	1		13
			1		1	3	5	6	1		5	1	3	2	1	2	2	6	6	5				14
			1	1	2	2	3	2		1	1	1	3	2	4	5	5	2	2	1				15
12	3		1		16	2	1	7	12	8	4	4	6	6	2	4	3	7	2	3	1			16
12	8	1	1		22	1	2		2		1		1				1	1						17
25	15	13	8	9	70	19	17	14	5	2	2	2	1	2	1		2							18
9	2	4	1		16	3	2	1		1	4	2	10	6	11	19	23	26	38	27	27			19
1					1	1	1				2	3	1	2	6	17	9	18	21	30	22			20
74	4	3	2		83																			21
14	4	2	1	2	23	4	5	7	7	4	2	4	6	11	5	10	11	15	12	7	4	2		22
17					17	3	3	6	2	9	8	11	12	14	25	33	27	51	62	42	43	2		23
7					7	2	1	1	1	5	1	4	10	4	5	6	6	11	11	9	10	1		24
51	11		3	1	66	1		2		1	1	1	1	2	2	2	2	5	9	12	7			25
19	5	2	1	2	29	1					1	1								2				26
106	20	9	7	5	146	9	5	15	15	10	5	16	10	11	16	21	21	24	21	14	23	2		27
1	1	1			3		1	1	1		2	1	1	2		1	1	2						28
28	4	3	2	1	34	4	1	4	3	4	1	3	3	4	4	3	8	10	7	2	7			29
23	2		1	1	27			2	1	3		3	2	2	4	6	8	13	4	6	8			30
218	59	32	7	2	318																			31
					6	1	1	5			3	2	4	1	3	4	2	12	9	10	8			32
4	5	3	2	1	15	1	1		2	1	2	2	5	8	5	8	11	6	13	10	3			33
3		1	2	1	7	1					3	3	3	2	2	4	3		1	1	2			34
4	3	1	1		9	8	6	5	5	3	4	3	2	3	2	1	1		1					35
15	2		2		19	5	1	4	2	1	2	1	2	1	3	4	4	3	3	7	6			36
																								37
4					4	3	4	4	3	7	9	9	7	8	15	19	19	8	18	8	5			38
3					3	2	2	1	3	5	4	2	4	1	7	5	9	10	10	15	18			39
								4	16	14	19	11	15	1										40
10		1			11				1	1		3	1	3	1	1	3	6	2	7	5			41
3	1	1		1	6	2	1	2	1	4	1					1		2		1	1			42
21					21																			43
207	5				212																			44
																	1	2	11	19	87	1		45
21	9	10	7	4	51	11	20	33	1	15	16	21	15	16	17	9	9	11	9	12	6	15	2	46
								1				1	1		1					1				47
71	3	2			76	5	3	1	6	3	5	5	6	10	8	4	13	22	23	32	71	1		48

Table 18.—Concluded.—Causes of death in Michigan, by months and age

Line number.	Causes of death, 1899.	Total deaths, 1899.	Rate per 100,000 estimated population.	Months of death, 1899.											
				Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1	ALL CAUSES	20,980	1,458.9	2,126	2,478	2,102	1,879	1,503	1,437	1,510	1,619	1,597	1,598	1,518	1,6
2	Stillbirths (included in above) . .	810	56.3	73	68	73	68	69	71	59	65	48	75	67	
3	Typhoid fever	306	21.3	20	13	13	13	10	11	23	33	39	65	33	
4	Measles	75	5.2	2	1	4	9	1	11	2	2	2	5	18	
5	Scarlet fever	66	4.6	7	6	7	4	2	4	6	4	8	7	4	
6	Whooping cough	100	7.0	6	12	11	7	4	6	10	11	10	7	8	
7	Diphtheria and croup	321	22.3	24	28	15	17	16	11	10	19	23	49	48	
8	Influenza	1,102	76.6	282	456	204	90	20	11	8	3	5	4	4	
9	Other epidemic diseases	21	1.5	2	3	3	4		1	1	1	2	1	2	
10	Malaria	88	6.1	3	4	5	9	6		8	5	16	22	5	
11	Tuberculosis of lungs	1,307	90.9	105	140	137	127	129	87	101	84	85	90	116	1
12	Other forms of tuberculosis	339	23.6	32	31	50	25	29	35	20	32	30	15	18	
13	Cancer	903	62.8	65	78	76	89	53	69	71	73	92	78	76	
14	Rheumatism	188	13.1	15	15	15	18	22	19	11	16	13	19	8	
15	Diabetes	166	11.5	20	20	11	15	13	9	11	13	13	11	14	
16	Other general diseases	397	27.6	28	30	38	29	37	32	27	51	41	32	30	
17	Simple meningitis	142	9.9	13	14	14	20	12	15	8	10	5	11	10	
18	Cerebrospinal meningitis	377	26.2	28	39	43	70	54	23	22	26	26	14	17	
19	Cerebral congest'n and hem. . . .	875	60.8	97	89	86	83	55	65	66	57	62	78	64	
20	Paralysis	608	42.3	72	62	60	51	47	39	37	39	50	45	49	
21	Convulsions of infants	254	17.7	28	26	22	26	26	14	21	23	12	20	19	
22	Other nervous diseases	668	46.5	67	73	60	49	53	54	48	56	55	56	47	
23	Organic heart disease	1,570	109.2	147	150	126	144	127	124	113	126	112	127	135	1
24	Other circulatory diseases	379	26.4	41	34	30	38	28	29	43	25	23	26	28	
25	Bronchitis	493	33.6	69	74	72	57	27	20	17	22	14	32	35	
26	Broncho-pneumonia	164	11.4	15	30	41	21	9	2	3	3	4	6	17	
27	Pneumonia	1,391	96.7	215	328	227	167	85	38	28	27	44	60	73	
28	Pleurisy	90	6.3	7	19	13	12	5	6	2	6	4	5	6	
29	Other respiratory diseases	381	26.5	42	51	45	35	22	26	23	16	21	29	34	
30	Stomach diseases	343	23.9	18	34	27	22	33	27	32	35	33	28	22	
31	Infantile diarrhea	983	68.4	26	18	25	28	23	134	181	206	198	80	38	
32	Diarrhea and enteritis	287	20.0	21	20	15	30	19	13	27	41	42	27	15	
33	Dysentery	117	8.1	1	2	4	3	2	3	16	29	36	16	4	
34	Liver diseases	341	23.7	17	27	33	37	34	30	33	29	21	24	23	
35	Peritonitis	190	13.2	16	26	21	20	9	9	13	18	9	20	16	
36	Iliac abscess	128	8.9	11	5	14	17	10	10	9	12	10	12	8	
37	Other digestive diseases	261	18.1	29	16	24	19	27	19	13	17	22	30	24	
38	Bright disease	687	47.8	74	57	66	58	52	56	59	46	43	63	60	
39	Other genito-urinary diseases . . .	397	27.6	50	27	43	37	35	23	29	38	26	25	34	
40	Puerperal diseases	246	17.1	24	23	27	21	23	22	18	22	12	15	14	
41	Skin diseases	187	13.0	28	19	25	13	13	15	16	12	9	14	13	
42	Diseases locomotor system	40	2.8	3	2	2	4	3	3	5	6	2	3	4	
43	Malformations	111	7.7	6	13	13	7	7	12	13	8	8	8	6	
44	Diseases of infancy	821	57.1	76	77	78	51	80	52	70	79	78	57	59	
45	Diseases of old age	456	31.7	49	58	45	38	29	29	25	30	39	51	38	
46	Suicides	127	8.8	11	6	10	10	14	12	10	14	8	12	14	
47	Accidents	809	56.3	57	52	51	75	39	78	80	83	83	62	67	
48	Homicide	19	1.3			1	1	3	1	1	3	4	3	1	
49	Causes ill-defined	859	59.7	84	102	77	91	67	57	62	43	57	59	73	

CAUSES OF DEATH

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for the State and geographical sections, 1899. IV.—Southern Counties.

Ages of decedents, 1899.

Ages in years under five.					Ages by five-year periods.																		Unk.	Line number.
0.	1.	2.	3.	4.	0 to 4.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 to 84.			
4,261	637	343	204	146	5,591	429	346	571	771	699	646	678	688	734	783	1,021	1,192	1,451	1,600	1,588	2,154	38	1	
810					810																		2	
1	3	3	2	1	10	11	32	44	44	38	30	24	14	18	11	11	5	9	2	3			3	
18	24	10	2	1	55	7	2	5			1	2	1	1									4	
3	8	13	8	6	38	16	5	4	1	1	1												5	
56	21	12	4	3	96	4																	6	
24	45	53	41	32	195	83	24	8	5	2	1	2		1									7	
132	20	5	2	3	162	15	7	15	21	19	16	18	27	24	31	57	85	101	126	132	244	2	8	
5	2	1	1	1	10	1	2			1	1	2		1		1	1						9	
6	4	1	2	2	15	3	5	5	7	4	5	2	3	7	1	3	5	5	7	5	6		10	
7	1	3	1	4	16	5	19	119	210	184	155	114	102	75	73	53	57	62	30	27	15	1	11	
29	13	11	4	3	60	10	8	31	36	33	29	29	17	17	15	19	10	11	8	2	3	1	12	
			1	2	3	2	1	5	8	11	21	36	51	82	83	120	111	136	94	71	66	2	13	
1		1			2	10	8	6	5	5	2	7	5	7	14	17	14	24	26	18	18		14	
1		1	1	1	4	9	9	10	5	4	3	6	6	5	15	13	20	21	12	18	6		15	
75	8	4	2	2	91	6	9	9	21	27	22	24	29	23	24	28	21	21	16	13	13		16	
49	20	9	4	1	83	11	3	2	5	7	4	6	6	2	1	6		1	1		4		17	
96	36	31	23	14	199	40	26	31	17	11	6	6	6	7	1	7	3	9	2	1	1		18	
32	12	2	3	3	52	7	5	7	10	9	13	20	21	38	44	81	82	110	120	127	128	1	19	
3	1	1	1		6	1		2	1	4	7	7	12	13	26	49	53	66	110	108	141	2	20	
234	9	5	4	1	253	1																	21	
42	15	11	5	2	75	14	15	25	20	30	22	33	28	46	44	37	50	64	67	54	38	2	22	
4	5		1	2	92	14	15	13	18	25	25	38	47	52	91	112	163	186	236	236	203	4	23	
10	1		1	3	15	5	12	5	13	9	10	12	22	14	13	28	27	37	63	53	41		24	
156	35	18		6	215	6	2	6	4	5	4	6	5	5	8	21	20	24	38	44	69	1	25	
69	23	15	6	3	116	2		2	1			1	2		4	2	3	1	8	9	13		26	
309	85	34	18	10	456	22	26	30	55	24	47	51	37	58	51	55	76	103	94	100	105	1	27	
2	2		1		5		2	4	6	1	7	9	7	6	4	3	13	8	6	4	5		28	
56	12	4	3	3	78	9	3	6	13	7	16	10	14	12	10	21	26	36	47	29	42	2	29	
53	8	3	1		65	3	3	5	6	8	8	5	15	24	15	26	27	25	35	34	37	2	30	
767	128	56	22	7	980	3																	31	
						12	6	6	4	9	8	6	8	9	11	16	18	33	45	47	49		32	
16	11	4	7		38			1	1		1	2	1	3	4	3	4	6	11	20	22		33	
11	2	1	1	1	16	2	3	2	6	4	8	17	24	22	28	27	34	48	46	29	25		34	
11	4	3	1	1	20	10	8	10	23	21	15	16	11	7	6	8	9	13	8	3	1		35	
					2	13	16	20	16	13	11	2	9	7		4	3	6	1	2	3		36	
36	5	3	4	4	52	10	8	10	5	8	12	7	5	13	11	10	20	26	23	25	15		37	
6	1	1	1	2	11	7	8	9	17	23	17	23	34	41	49	68	84	87	84	67	58		38	
18	7	2		2	29	4	2	9	16	17	17	22	28	9	17	21	21	34	38	49	64		39	
								16	60	58	45	41	24	2									40	
23	2	1	2		28	1	1	4	7	4	4	4		3	6	6	19	16	11	27	45		41	
2	3	1			6	3	6	5	1	2	1			3	3	3	1	2		2	2		42	
100	8	1	2		111																		43	
79	15	4	1	1	820	1																	44	
														1			1	3	14	45	68	323	1	45
22	29	13	18	14	96	43	41	68	56	49	35	42	36	36	31	41	48	37	40	46	54	10	46	
1		1	1	1	4			2	2	2	1	2	2		2		1			1			47	
86	9	1	2	3	101	3	4	4	14	11	8	9	14	20	22	32	48	73	96	109	289	2	48	

Table 19.—Causes of death in Michigan, 1899, showing death rates per 100,000 estimated population of same age period.

Line number.	Causes of death, 1899.	All ages, 1899, rate per 100,000 population.	Under 1 year.	Five-year periods.		Ten-year periods of age.										a
				0 to 4.	5 to 9.	0 to 9.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.			
1	ALL CAUSES.*.....	1,353.4	9,962.1	2979.3	321.5	1,730.7	350.9	609.1	632.2	893.6	1483.7	3325.8	8388.1	23,		
2	Stillbirths (not inc. in above)...	58.1	2,174.0	466.7		247.4										
3	Typhoid fever.....	24.3	4.7	7.4	12.2	9.6	31.0	37.5	28.6	20.7	18.4	22.0	11.4			
4	Measles.....	7.8	78.4	46.5	8.4	28.6	3.1	0.7	1.4	1.2						
5	Scarlet fever.....	6.0	17.3	29.3	14.4	22.3	3.1	0.7	0.3							
6	Whooping cough.....	10.0	221.2	77.8	2.7	42.5										
7	Diphtheria and croup.....	18.2	61.2	85.2	44.5	66.1	10.6	2.2	0.9	0.4						
8	Influenza.....	70.1	356.1	99.3	7.6	56.2	8.9	16.9	16.4	29.3	71.6	223.1	763.6	2,		
9	Other epidemic diseases.....	1.3	14.1	5.4	0.4	3.0	0.6	0.5	0.9	0.4	1.1	0.9	1.9			
10	Malaria.....	6.1	14.1	8.8	2.7	5.9	3.7	4.1	3.1	5.9	5.4	15.0	30.3			
11	Tuberculosis of lungs.....	87.9	25.1	11.8	4.2	8.2	48.6	159.8	121.6	110.2	98.2	139.3	159.2			
12	Other forms of tuberculosis.....	25.0	100.4	44.4	10.3	28.4	15.0	29.5	23.8	21.5	27.1	28.2	30.3			
13	Cancer.....	55.9	1.6	2.0	1.5	1.8	1.7	7.5	27.2	81.7	104.9	314.8	435.8			
14	Rheumatism.....	11.6	1.6	1.0	6.5	3.6	7.3	3.4	5.4	7.4	22.2	45.8	108.0			
15	Diabetes.....	9.4	1.6	2.0	4.2	3.0	5.8	3.4	4.0	7.4	21.7	45.0	64.4			
16	Other general diseases.....	25.0	158.4	42.4	4.9	24.8	6.4	21.5	18.4	35.2	39.6	52.9	66.3			
17	Simple meningitis.....	9.7	130.2	48.2	6.1	28.4	2.5	4.6	3.7	4.3	4.9	2.6	1.9			
18	Cerebrospinal meningitis.....	34.4	255.7	133.0	40.7	89.6	30.8	15.5	13.0	9.8	6.5	15.9	5.7			
19	Cerebral congest'n and hem.	51.3	86.3	29.3	4.6	17.7	3.3	6.0	12.5	33.6	97.6	231.0	653.7	1,		
20	Paralysis.....	35.3	7.8	3.4	0.8	2.1	1.0	1.9	6.8	12.5	60.7	156.1	559.0	1,		
21	Convulsions of infants.....	19.4	641.5	164.9	1.5	82.8										
22	Other nervous diseases.....	41.3	123.9	45.5	9.5	28.6	15.2	18.4	22.1	42.6	69.4	136.7	299.4			
23	Organic heart disease.....	93.3	203.9	47.8	8.0	29.1	11.0	15.2	30.9	59.0	162.1	433.8	1208.9	2,		
24	Other circulatory diseases.....	23.0	32.9	9.1	4.2	6.8	4.8	8.0	10.5	23.1	34.2	85.5	278.5			
25	Bronchitis.....	32.9	469.0	137.7	2.7	74.3	2.5	2.7	4.0	7.0	22.8	61.7	227.4			
26	Broncho-pneumonia.....	12.0	202.3	70.7	1.9	38.4	1.0	0.2	1.1	1.6	3.8	9.7	43.6			
27	Pneumonia.....	91.9	814.1	259.3	16.7	145.3	18.7	33.1	44.8	62.9	97.6	221.3	492.6	1,		
28	Pleurisy.....	5.6	6.3	4.4		2.3	2.3	3.1	6.5	8.2	5.4	23.8	20.8			
29	Other respiratory diseases.....	24.8	177.2	53.2	6.5	31.2	3.7	7.7	10.2	15.6	25.5	80.2	187.6			
30	Stomach diseases.....	23.1	183.5	47.1	2.3	26.1	3.3	5.3	5.7	19.9	35.2	75.8	176.2			
31	Infantile diarrhea.....	79.0	2,235.2	633.0	1.5	336.4										
32	Diarrhea and enteritis.....	17.8		9.1		4.3	4.2	5.1	7.9	10.6	22.2	68.8	227.4			
33	Dysentery.....	7.5	43.9	22.2	0.4	12.0	0.4	0.2	1.1	2.0	6.5	15.9	77.7			
34	Liver diseases.....	20.8	25.1	8.4	1.5	5.2	2.1	5.1	9.9	20.3	45.0	94.3	200.8			
35	Peritonitis.....	12.8	29.8	11.8	11.0	11.4	6.9	16.4	12.5	9.4	16.8	20.3	30.3			
36	Iliac abscess.....	9.3	1.6	2.0	11.4	6.4	14.1	12.1	5.7	9.8	3.3	10.6	5.7			
37	Other digestive diseases.....	17.2	109.8	33.0	6.8	20.7	5.0	4.8	7.9	10.9	20.1	57.3	128.8			
38	Bright's disease.....	40.4	15.7	5.4	4.6	5.0	6.9	15.2	20.7	41.8	96.0	194.0	363.8			
39	Other genito-urin'ry diseases.....	24.1	37.6	12.8	4.6	8.9	3.5	12.6	14.5	19.5	29.8	72.3	238.7			
40	Puerperal diseases †.....	17.9					5.8	45.9	44.2	21.1						
41	Skin diseases.....	11.2	56.5	14.1	0.4	7.7	1.0	3.4	4.0	3.5	9.8	46.7	111.8			
42	Diseases locomotor system.....	3.1	14.1	6.1	2.3	4.3	3.1	1.9	0.9	2.0	3.8	5.3	5.7			
43	Malformations.....	7.1	246.3	56.9		30.2	0.2									
44	Diseases of infancy.....	58.5	2,131.7	469.7	0.4	249.2										
45	Diseases of old age.....	28.3								0.4	1.1	21.2	337.3	3,		
46	Suicides.....	7.9					1.5	6.5	9.6	17.2	15.7	21.2	28.4			
47	Accidents.....	66.2	102.0	70.7	33.1	53.0	45.7	59.0	56.4	64.9	67.8	107.6	204.6			
48	Homicides.....	1.2	1.6	1.3		0.7	0.8	1.5	1.4	1.2	2.2		3.8			
49	Causes ill-defined.....	66.2	520.8	124.9	4.9	68.6	3.5	9.7	11.9	28.5	47.7	169.3	596.9	3,		

* Stillbirths not included.

† These rates should be doubled, approximately, to show the rate per 100,000 females of each age.

DEATH RATES BY DECENNIAL AGE PERIODS, 1899.

In Table 19 on the opposite page may be found some of the most important characteristics of the mortality of Michigan for the year 1899. The rates are based, not on the total population of the State at all ages, but on the estimated population for 1899 at each decennial period, so that the deaths are compared directly with the element of population affording them. Study of the data thus analyzed is more satisfactory for many purposes than the mere comparison of the crude death rates at all ages uncorrected for age distribution.

The basis of 100,000 population has been chosen for these rates, as for all other rates of causes of death in this report, because of its special convenience. By moving the decimal point one place to the left, rates per 10,000 population, correct to two decimal places, are obtained, while by dispensing with the decimal point entirely we have rates per million as used in the English registration reports. The death rates of the totals are allowed to stand as rates per 100,000, corresponding to the summation of the rates for individual causes of death under each head, but for convenience, in ordinary comparisons, the decimal point should be shifted two places to the left, thus giving us the customary rates per 1,000. This is the practice of some excellent statisticians in regard to the statement of deaths from individual diseases, but on account of the number of places of decimals required, would not seem as convenient as the method here employed.

As compared with the corresponding table in the report for the preceding year, a general increase in the death rate for each age-period will be observed. The year 1898 was a year of exceptionally favorable conditions in regard to the lowness of the death rate, so that the increase of mortality at each period of life in 1899 does not necessarily indicate any especially unhealthy characteristics of the latter year, which, in fact, except for the epidemic prevalence of influenza during the early months, was very favorable.

The death rate from all causes at all ages rose from 12.0 per 1,000 population in 1898 (1,199.0 per 100,000 population), exclusive of still-births, to 13.5 per 1,000 (1,353.4 per 100,000 population) in 1899. Under one year of age, the mortality rose from 88.4 per 1,000 estimated living infants under one year of age in 1898 to 99.6 in 1899; this ratio is not as satisfactory as the preferable statement of "infant mortality," based upon the comparison of deaths of infants under one year per thousand living births, but the absence of any accurate registration of births in this State renders the latter ratio unobtainable. The rate per 1,000 population under one year of age is peculiarly liable to error owing to the inaccuracies of the census enumerations at this age. Moreover, the present rates for 1899, derived from comparisons of the censuses of 1890 and 1894, may be subject to corrections when the results of the U. S. census of 1900 are available.

The death rate of children under five years of age per 1,000 estimated population of the same age rose from 26.0 in 1898 to 29.8 in 1899. The death rate of children aged 5 to 9 years, both inclusive rose from 2.8 to 3.2 per 1,000 in the same time.

Passing to the decennial groups of ages, we find that the death rate of infants and children under 10 years of age is not equalled until we pass the sixth decade of life and reach the years 60-69, inclusive. From that point the mortality very rapidly increases with advancing age, until for 80 years and over the proportion of deaths is nearly one-fourth of the living population each year.

The general relations of the distribution of deaths from certain important individual diseases may be seen in Diagram I (*frontispiece*), although it must be remembered that the total number of deaths, unlike the death rates given in Table 19, tends to diminish with advancing ages. Thus, with the same number of deaths returned from a given cause in two successive ten-year periods, an increasing death rate with advancing age would be indicated, because the population grows less with each year of life. In the case of pulmonary tuberculosis, the line representing the number of deaths at each ten-year period of age rises rapidly to a maximum at the age-period 20-29, and falls a little more gradually through all of the successive periods of life. The large number of deaths between 20 and 30 years depends upon two factors, (1) that the death rate for this period is actually higher than those of any other shown in Table 19, except 70-79 and 80 years and over, both of which have small representation in the population, and (2) that the number of persons in the population between the ages of 20 and 30 years, whom this high death rate from pulmonary tuberculosis affects, is quite large. A similar relation is seen in the case of typhoid fever. The maximum death rate as seen in Table 19 and the maximum number of deaths both fall in the age-period 20-29, but the death rates do not as regularly decline after that period of life as do the number of deaths. Again in deaths from accidents, the mortality by age-periods as given in Table 19 rises from the period 30-39, and very rapidly for the last few decades. The deaths, on the contrary, show a maximum for children under ten years of age, and a secondary maximum for the period 20-29, declining from that point.

The number of deaths from any given cause at a certain period of age and the death rate for the same cause and age-period are both of importance, but it is desirable that they be clearly distinguished when employed. In another way this distinction may be of some importance, namely, when it is desired to compare the mortality from certain diseases which affect only limited age-periods. Thus, if a State had exactly the same death rate from measles as Michigan, namely 7.8 per 100,000 population, but possessed only one-half the number of children at the most susceptible age, under five years, it is evident that we could not compare the gross death rates with fairness. The same is true with reference to the comparison of the total death rates, without reference to age-distribution of the population. Yet this is being constantly done, and may result in some very unjust conclusions. It is very desirable that the more general use of the mortality index, or some equivalent method, come into general use in this country, as in the Registrar-General's report for England, in place of the very uncertain crude death rate.

DISCUSSION OF INDIVIDUAL CAUSES OF DEATH, 1899.

The following text is devoted to the discussion of the most important individual diseases and groups of diseases according to the condensed list as shown in Tables 18 and 19. Table 18 indicates the distribution of deaths, by geographical divisions, and Table 19 shows the death rates by age-periods for each of the titles covered. A somewhat condensed list seemed desirable for the purposes of this discussion, rather than the full Bertillon classification, but the inclusion of each title is plainly stated in the following text, and comparisons can be readily made with the detailed classification.

In the previous report, diagrams were presented in connection with certain diseases, indicating graphically the distribution by months and age-periods. These diagrams for the year 1898 have been reprinted in a single plate as a basis for comparing the statistics of 1899 with those of the previous year, and over this ground plate, in a contrasting color, have been printed the corresponding data for 1899 (See Diagram I, *frontispiece*).

A special feature of the descriptive text is the comparison of the mortality statistics of the two years, 1898 and 1899, the first two complete years compiled from the results of the new registration law. Any detailed comparisons with previous years, when the data were obtained from the incomplete and extremely unsatisfactory enumeration of deaths by supervisors, would be of little benefit, hence the series of deaths and death rates for previous years under the old law has been omitted. In time we shall possess a fairly reliable series of death rates, and therefore may be able to derive a normal or average mortality for each disease which will be exceedingly convenient and important in practical sanitary use. But it should be remembered, for the present, that this is only the *second* fairly accurate registration report ever published by the State of Michigan, and hence general conclusions as to the general mortality, month and age distribution, etc., of any particular disease, or as to the relative standing of various diseases as causes of death, should not be too hastily drawn on such a limited basis of experience.

Stillbirths continue to be presented in connection with total deaths, both in Table 18 and in the primary tables of deaths (Table III, p. 20, etc.). They are not included in the rates by age-periods given in Table 19. Their inclusion with deaths, contrary to the prevailing practice of statisticians and the requirements of the Bertillon classification which is otherwise followed in this report, arises chiefly from the fact that they are most largely registered as deaths and in every respect conform to the requirements of the law for that purpose. It is important for registrars to insist that stillbirths shall be registered in the same way as deaths from any other cause. Of course, properly speaking, the return of "stillborn" does not explain the cause, more than "infantile" or "old age," but it is not likely that a very great degree of discrimination as regards the actual causes of death of stillborn children will come into general practice in this country, except, perhaps, in a few cities where special attention is given to the subject. It will, perhaps, be preferable, if we ever obtain a satisfactory registration law for births

in this State, to provide for their registration as births, or as a separate class of births. It may be necessary even then to insist on a double registration both as births and as deaths, with a correspondingly increased fee to the registrar, in order to secure the utmost accuracy in this very important and usually greatly neglected class of returns.

Of course what has been suggested applies solely to the method of collecting, not of compiling, stillbirths. In any case they should be given in separate tables, apart from births and deaths, and where they can conveniently be added to births when it is desired to study the subject of fecundity, without respect to the number of living children born only, and to deaths, especially those stillbirths whose causes are given, when it is desired to include a statement of the total mortality, antenatal as well as of children born alive, from certain diseases. The U. S. census of 1900 has removed stillbirths from the regular tables of deaths, and, beginning with the registration report of Michigan for 1901, which will mark the introduction of the revised International Classification of Causes of Death in these reports, we shall cease to include stillbirths among births or deaths, but assign them to a separate place in the report.

TYPHOID FEVER.

Classification.—The Bertillon classification of causes of death gives the following:

1. **Typhoid Fever.** *This title includes:* Dothinerteritis; mucous, continued, ataxic, or adynamic fever; abdominal typhus.

This title does not include: Adynamia (154); ataxo-adynamia (154); typhoid-pneumonia (72).

Frequent complications: Pneumonia; pulmonary congestion; intestinal perforation; peritonitis; intestinal hemorrhage; sloughing; albuminuria.

The reference numbers refer to the list as printed in the Appendix of the last report or as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40 and Table VII (cities), p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 580 deaths compiled from typhoid fever in Michigan during the year 1899, corresponding to a death rate of 24.3 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 20, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred during the month of October, namely, 116, and the smallest number, 26, occurred in February.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Northern counties. Stated as death rates per 100,000 population, the greatest mortality from this cause, 41.4, was in the Upper Peninsula, and the least, 21.3, in the Southern counties.

Classified by sex, there were 313 males and 267 females. The largest number of deaths occurred in the age-period 20-29 years. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon population of corresponding ages, as given in Table 19 for each of the age periods here shown.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 20 with the data given in the corresponding table of

the registration report for 1898, it appears that there were 8 more deaths in 1899 from this cause than in 1898. The death rate for the State was precisely the same in the two years. The highest mortality, by geographical sections, from this cause in 1898 was in the Central counties, which had a death rate of 26.6 per 100,000 population, as compared with a maximum death rate of 41.4 per 100,000 population in the Upper Peninsula in 1899.

Table 20.—Deaths from typhoid fever in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	580	24.3	28	26	37	35	27	30	39	51	76	116	66	49
I. Upper Peninsula.....	90	41.4	3	3	8	12	10	9	7	4	11	13	5	5
II. Northern counties....	61	22.2	1	1	4	4	4	5	3	5	7	17	6	4
III. Central counties....	123	27.3	4	9	12	6	3	5	6	9	19	21	22	7
IV. Southern counties....	306	21.3	20	13	13	13	10	11	23	33	39	65	33	33
Deaths by sex, 1899.			Deaths by ages, 1899.*											
Males.	Females.		Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
313	267		3	22	32	54	149	155	101	53	34	25	6	3

* Includes three deaths at unknown ages.

In Diagram I (*frontispiece*) a graphic comparison is made of the deaths returned from this cause during the two years 1898 and 1899, distinguishing the months of death and ages of decedents. The returns for 1898 are shown by the blue lines and those for 1899 are printed over in brown on the same scale. The number of deaths for each month and age-period, not the death rate, is indicated. A slight correction would be necessary in an exact comparison for the varying lengths of the months, and the same number of deaths in each of two age-periods might correspond to very different rates of mortality, the latter depending upon the distribution of the population by ages. In general, with an equal number of deaths reported for successive decennial periods of age, the death rates would show an increase, since the population at each age-period usually diminishes from the early years of life, and would do so with considerable uniformity but for the effects of immigration.

There were 57 deaths reported from the so-called "typho-malarial fever," which is probably ordinary typhoid fever in the vast majority of cases, and hence included in the total number of deaths from typhoid fever as given above.

MEASLES.

Classification.—The Bertillon classification of causes of death gives the following:

5. Measles. *This title includes:* Measly or rubeolar eruption.

This title does not include: Rubella (13).

Most frequent complications: Bronchitis; broncho-pneumonia, etc.

The reference number refers to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40 and Table VII (cities), p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 187 deaths compiled from measles in Michigan during the year 1899, corresponding to a death rate of 7.8 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 21, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred during the month of December, namely, 33, and the smallest number, 2, occurred in September.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Upper Peninsula. Stated as death rates per 100,000 population, the greatest mortality from this cause, 15.6, was in the Northern counties, and the least, 5.2, in the Southern counties.

Classified by sex there were 88 males and 99 females. The largest number of deaths occurred under the age of 5 years. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Table 21.—Deaths from measles in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	187	7.8	9	16	11	23	15	23	10	9	2	12	24	33
I. Upper Peninsula.....	29	13.3	3	4	1	2	1	4	3	1	1	3	1	5
II. Northern counties....	43	15.6	.....	1	.....	7	6	7	3	5	.....	4	4	6
III. Central counties....	40	8.8	4	10	6	5	7	1	2	1	1	.....	1	2
IV. Southern counties....	75	5.2	2	1	4	9	1	11	2	2	.....	5	18	20
Deaths by sex, 1899.			Deaths by ages, 1899.*											
Males.	Females.		Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
88	99		50	138	22	160	15	3	5	3	.....	.....	.....	.....

* Includes one death at unknown age.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 21 with the data given in the corresponding table of the registration report for 1898, it appears that there were 56 more deaths in 1899 from this cause than in 1898. The death rate for the State increased from 5.6 in 1898 to 7.8 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Upper Peninsula, which had a death rate of 14.2 per 100,000 population as compared with a maximum death rate of 15.6 per 100,000 population in the Northern counties in 1899.

SCARLET FEVER.

Classification.—The Bertillon classification of causes of death gives the following:

6. Scarlet fever. *This title includes:* Puerperal scarlatina; scarlatinal angina.

Frequent complications: Albuminuria; eclampsia; edema of the glottis; hemorrhage; endocarditis; pericarditis; paralysis; diphtheria; convulsions.

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan 1899.—There were 144 deaths compiled from scarlet fever in Michigan during the year 1899, corresponding to a death rate of 6.0 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 22, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred during the month of December, namely, 25, and the smallest number, 6, in April.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Central counties. Stated as death rates per 100,000 population, the greatest mortality from this cause, 14.7, was in the Upper Peninsula, and the least, 3.7, in the Southern counties.

Table 22.—Deaths from scarlet fever in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	144	6.0	12	8	13	6	7	8	9	10	8	20	18	25
I. Upper Peninsula.....	32	14.7	.....	1	2	.....	3	3	2	2	.....	3	5	11
II. Northern counties....	29	10.5	3	.....	2	2	.....	1	1	2	.....	8	5	5
III. Central counties....	17	3.7	2	1	2	.....	2	.....	.....	2	.....	2	4	2
IV. Southern counties....	66	4.6	7	6	7	4	2	4	6	4	8	7	4	7
Deaths by sex, 1899.			Deaths by ages, 1899.											
Males.	Females.		Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
71	73		11	87	38	125	15	3	1	.....	.....	.....	.....	.....

Classified by sex, there were 71 males and 73 females. The largest number of deaths occurred under the age of five years. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 22 with the data given in the corresponding table of the registration report for 1898, it appears that there were 53 more deaths in 1899 from this cause than in 1898. The death rate for the State increased from 3.9 in 1898 to 6.0 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Northern counties, which had a death rate of 7.8 per 100,000 population, as compared with a maximum death rate of 14.7 per 100,000 population in the Upper Peninsula in 1899.

In Diagram I (*frontispiece*) a graphic comparison is made of the deaths returned from this cause during the two years 1898 and 1899, distinguishing the months of death and ages of decedents. The returns for 1898 are shown by the blue lines and those for 1899 are printed over in brown on the same scale. The number of deaths for each month and age-period, not the death rate, is indicated. A slight correction would be necessary in an exact comparison for the varying lengths of the months, and the same number of deaths in each of two age-periods might correspond to very different rates of mortality, the latter depending upon the distribution of the population by ages. In general, with an equal number of deaths reported for successive decennial periods of age, the death rates would show an increase, since the population at each age-period usually diminishes from the early years of life, and would do so with considerable uniformity but for the effects of immigration.

WHOOPIING COUGH.

Classification.—The Bertillon classification of causes of death gives the following:

7. Whooping cough.

Frequent complications: Bronchitis; convulsions.

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 238 deaths compiled from whooping cough in Michigan during the year 1899, corresponding to a death rate of 10.0 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 23, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred during the month of August, namely, 34, and the smallest number, 14, occurred in May.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Northern counties. Stated as death rates per 100,000 population, the greatest mortality from this cause, 26.7, was in the Upper Peninsula, and the least, 7.0, in the Southern counties.

Classified by sex there were 120 males and 118 females. The largest number of deaths occurred under the age of five years. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 23 with the data given in the corresponding table of the registration report for 1898, it appears that there were 44 less deaths in 1899 from this cause than in 1898. The death rate for the State decreased from 12.0 in 1898 to 10.0 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Upper Peninsula, which had a death rate of 18.0 per 100,000 population, as compared with a maximum death rate of 26.7 per 100,000 population in the same section in 1899.

Table 23.—Deaths from whooping cough in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	238	10.0	15	20	22	17	14	15	19	34	26	15	17	24
I. Upper Peninsula.....	58	26.7	3	3	6	6	6	3	3	6	9	3	3	7
II. Northern counties....	32	11.6	2	2	1	.....	.....	2	3	7	4	1	4	6
III. Central counties....	48	10.5	4	3	4	4	4	4	3	10	3	4	2	3
IV. Southern counties....	100	7.0	6	12	11	7	4	6	10	11	10	7	8	8

Deaths by sex, 1899.			Deaths by ages, 1899.											
Males.	Females		Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
120	118		141	231	7	238	.....	.....	.....	.....	.....	.....	.....	.....

While whooping cough is usually considered a comparatively trivial disease, and sanitary precautions are therefore frequently neglected, its importance as a cause of preventable deaths should be kept before the people. In the year 1899 it caused more deaths in Michigan than either measles or scarlet fever.

DIPHTHERIA AND CROUP.

Classification.—The Bertillon Classification of causes of death gives the following:

8. Diphtheria and croup. *This title includes:* Diphtheritic, pseudo-membraneous, infections, malignant, or toxic anginas; diphtheria in all forms and especially diphtheria of wounds, of the skin, of the conjunctiva, mouth, etc.; pseudo-membraneous bronchitis; pseudo-membraneous laryngitis; malignant laryngitis; diphtheritic paralysis.

This title does not include: Stridulous croup (68); spasmodic croup (68); false croup (68).

Frequent complications: Pneumonia; albuminuria; paralysis.

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 435 deaths compiled from diphtheria and croup in Michigan during the year 1899, corresponding to a death rate of 18.2 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 24, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred during the month of December, namely, 74, and the smallest number, 16, occurred in June.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Upper Peninsula. Stated as death rates per 100,000 population, the greatest mortality from this cause, 22.3, was in the Southern counties, and the least, 9.7, in the Upper Peninsula.

Classified by sex there were 206 males and 229 females. The largest number of deaths occurred under five years of age. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Table 24.—Deaths from diphtheria and croup in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	435	18.2	40	42	24	21	24	16	17	23	32	60	62	74
I. Upper Peninsula.....	21	9.7	4	4	2	2	1	1	.....	.....	2	1	3	1
II. Northern counties....	35	12.7	8	8	3	1	5	.....	2	.....	3	2	2	1
III. Central counties....	58	12.7	4	2	4	1	2	4	5	4	4	8	9	11
IV. Southern counties....	321	22.3	24	28	15	17	16	11	10	19	23	49	48	61
Deaths by sex, 1899.			Deaths by ages, 1899.*											
Males.	Females.		Under 1 year.	Under 5 years.	to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
206	229		39	253	117	370	51	9	3	1	.....	.....	.....	.....

* Includes one death at unknown age.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 24 with the data given in the corresponding table of the registration report for 1898, it appears that there were 21 less deaths in 1899 from this cause than in 1898. The death rate for the State decreased from 19.4 in 1898 to 18.2 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Upper Peninsula, which had a death rate of 29.8 per 100,000 population, as compared with a maximum death rate of 22.3 per 100,000 population in the Southern counties in 1899.

In Diagram I (*frontispiece*) a graphic comparison is made of the deaths returned from this cause during the two years 1898 and 1899, distinguishing the months of death and ages of decedents. The returns for 1898 are shown by the blue lines and those for 1899 are printed over in brown on the same scale. The number of deaths for each month and age-period, not the death rate, is indicated. A slight correction would be necessary in an exact comparison for the various lengths of the months, and the same number of deaths in each of two age-periods might correspond to very different rates of mortality, the latter depending upon the distribution of the population by ages. In general, with an equal number of deaths reported for successive decennial periods of age, the death rates would show an increase, since the population at each age-period usually diminishes from the early years of life, and would do so with considerable uniformity but for the effects of immigration.

INFLUENZA.

Classification.—The Bertillon classification of causes of death gives the following:

9. Influenza. *This title includes:* Grip; pneumonia due to influenza; bronchitis or broncho-pneumonia due to influenza.

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 1,673 deaths compiled from influenza in Michigan during the year 1899, corresponding to a death rate of 70.1 per 100,000 estimated-reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 25, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred during the month of February, namely, 690, and the smallest number, 5, occurred in August.

Considered by geographical sections the largest number of deaths was in the Southern counties, and the smallest number in the Upper Peninsula. Stated as death rates per 100,000 population, the greatest mortality from this cause, 76.6, was in the Southern counties, and the least, 30.8, in the Upper Peninsula.

Classified by sex there were 845 males and 828 females. The largest number of deaths occurred in the age-period 70-79 years. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents

at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 25 with the data given in the corresponding table of the registration report for 1898, it appears that there were 1,218 more deaths in 1899 from this cause than in 1898. The death rate for the State increased from 19.4 in 1898 to 70.1 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Southern counties, which had a death rate of 23.8 per 100,000 population, as compared with a maximum death rate of 76.6 per 100,000 population in the same section in 1899.

In Diagram I (*frontispiece*) a graphic comparison is made of the deaths returned from this cause during the two years 1898 and 1899, distinguishing the months of death and ages of decedents. The returns for 1898 are shown by the blue lines and those for 1899 are printed over in brown on the same scale. The number of deaths for each month and age-period, not the death rate, is indicated. A slight correction would be necessary in an exact comparison for the varying lengths of the months, and the same number of deaths in each of two age-periods might correspond to very different rates of mortality, the latter depending upon the distribution of the population by ages. In general, with an equal number of deaths reported for successive decennial periods of age, the death rates would show an increase, since the population at each age-period usually diminishes from the early years of life, and would do so with considerable uniformity but for the effects of immigration.

Table 25.—Deaths from influenza in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	1,673	70.1	400	690	325	143	33	22	11	5	8	8	8	20
I. Upper Peninsula.....	67	30.8	18	21	17	4	2	1	.....	.....	1	3	.....	.....
II. Northern counties....	179	65.1	38	68	34	21	7	4	2	2	.....	1	1	1
III. Central counties....	325	71.4	62	145	70	28	4	6	1	.....	2	.....	3	4
IV. Southern counties....	1,102	76.6	282	456	204	90	20	11	8	3	5	4	4	15
Deaths by sex, 1899.		Deaths by ages, 1899.*												
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.	
845	828	227	295	20	315	43	70	58	75	132	253	403	322	

* Includes two deaths at unknown ages.

MALARIA.

Classification.—The Bertillon classification of causes of death gives the following:

19. *Intermittent fever.* *This title includes:* Paludal fever; pernicious fever; pernicious attack; remittent fever; malaria.

This title does not include: Malarial cachexia (20).

20. *Malarial cachexia.* *This title includes:* Marsh or pernicious cachexia; marsh anemia; paludism.

This title does not include: Pernicious anemia (32).

Frequent complications: Dropsy; enlargement of the spleen; cardiac or renal lesions.

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 145 deaths compiled from malaria in Michigan during the year 1899, corresponding to a death rate of 6.1 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 26, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred during the month of October, namely, 31, and the smallest number, 2, occurred in June.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Upper Peninsula. Stated as death rates per 100,000 population, the greatest mortality from this cause, 8.1, was in the Central counties, while the least, 0.5, was in the Upper Peninsula.

Classified by sex there were 76 males and 69 females. The largest number of deaths occurred under the age of five years. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Table 26.—Deaths from malaria in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	145	6.1	9	10	7	13	12	2	10	10	21	31	11	9
I. Upper Peninsula.....	1	0.5								1				
II. Northern counties....	19	6.9	2	2		1	2	1	2	2	1	3	2	1
III. Central counties....	37	8.1	4	4	2	3	4	1		2	4	6	4	3
IV. Southern counties....	88	6.1	3	4	5	9	6		8	5	16	22	5	5
Deaths by sex, 1899.			Deaths by ages, 1899.											
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.	
76	69	9	26	7	33	18	17	11	15	10	17	16	8	

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 26 with the data given in the corresponding table in the registration report for 1898, it appears that there were 30 less deaths in 1899 from this cause than in 1898. The death rate for the State decreased from 7.4 in 1898 to 6.1 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Southern counties, which had a death rate of 8.5 per 100,000 population, as compared with a maximum death rate of 8.1 per 100,000 population in the Central counties in 1899.

TUBERCULOSIS.

Classification.—The Bertillon classification of causes of death gives the following:

22 A. Tuberculosis of the lungs. *This title includes:* Pulmonary tuberculosis; pulmonary phthisis; phthisis (without epithet); phymatosis; tubercle of the lungs; acute, galloping or miliary tuberculosis or phthisis; granulations (of the lungs); pulmonary cavities; consumption; caseous pneumonia; tubercular, bacillary, specific, granular, neoplastic or heteroplastic bronchitis or pneumonia; tubercular pleurisy; pulmonary anthracosis; tubercular hemoptysis.

This title does not include: Tuberculosis (without epithet) (22 F); hemoptysis (without epithet) (77 B); pulmonary hemorrhage (77 B); bronchorrhagia (without epithet) (77 B); apical pneumonia (72); laryngeal phthisis (22 E).

Frequent complications: Hemorrhage; pneumonia; pleurisy; persistent diarrhea.

22 B. Tuberculosis of the meninges. *This title includes:* Meningeal tuberculosis; tubercular meningitis; granular, miliary, caseous, bacillary, specific, neoplastic or heteroplastic meningitis.

This title does not include: Meningitis (without epithet), even for children of early age.

22 C. Tuberculosis of the peritoneum. *This title includes:* Tubercular, granular, bacillary or specific peritonitis; peritoneal tuberculosis; abdominal tuberculosis; tabes mesenterica.

This title does not include: Tubercular enteritis (22 E).

22 D. Tuberculosis of the skin. *This title includes:* Lupus; *esthiomene*.

22 E. Tuberculosis of other organs. *This title includes:* Laryngeal phthisis; tubercular laryngitis; tubercular nephritis; tubercular enteritis; bacillary abscess; tubercular ulcer; tuberculosis of the bones.

This title does not include: Pott's disease (130).

22 F. General tuberculosis. *This title includes:* Tuberculosis (without epithet).

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

PULMONARY TUBERCULOSIS.

Occurrence in Michigan, 1899.—There were 2,098 deaths compiled from pulmonary tuberculosis in Michigan during the year 1899, corresponding to a death rate of 87.9 per 100,000 estimated reporting population. The distribution of these deaths by months is shown in the State and geographical sections in Table 27, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred during the month of March, namely, 215, and the smallest, 143, occurred in June.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Upper Peninsula. Stated as death rates per 100,000 population, the greatest mortality from this cause, 93.0, was in the Upper Peninsula, and the least, 76.4, in the Northern counties.

Classified by sex, there were 902 males and 1,196 females. The largest number of deaths occurred in the age-period 20-29 years. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon population of corresponding ages, as given in Table 19 for each of the age periods here shown.

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Table 27.—Deaths from pulmonary tuberculosis in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	2,098	87.9	169	207	215	198	211	143	152	154	144	163	162	180
I. Upper Peninsula.....	202	93.0	19	14	25	23	28	11	17	14	16	12	11	12
II. Northern counties....	210	76.4	13	18	17	19	16	22	10	17	15	24	12	27
III. Central counties.....	379	83.2	32	35	36	29	38	23	24	39	28	37	23	35
IV. Southern counties....	1,307	90.9	105	140	137	127	129	87	101	84	85	90	116	106
Deaths by sex, 1899.			Deaths by ages, 1899.*											
Males.	Females.		Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
902	1,196		16	35	11	46	234	661	429	282	181	158	84	20

* Includes three deaths at unknown ages.

Table 28.—Deaths from other forms of tuberculosis (than pulmonary) in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	596	25.0	58	56	76	51	49	63	38	49	56	26	36	38
I. Upper Peninsula.....	86	39.6	11	6	11	8	5	8	8	7	8	4	7	3
II. Northern counties....	59	21.5	7	4	9	6	2	6	1	4	8	3	5	4
III. Central counties.....	112	24.6	8	15	6	12	13	14	9	6	10	4	6	9
IV. Southern counties....	339	23.6	32	31	50	25	29	35	20	32	30	15	18	22
Deaths by sex, 1899.			Deaths by ages, 1899.*											
Males.	Females.		Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
320	276		64	132	27	159	72	122	84	55	50	32	16	3

* Includes three deaths at unknown ages.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 27 with the data given in the corresponding table of the registration report for 1898, it appears that there were 55 less deaths in 1899 from this cause than in 1898. The death rate for the State

decreased from 91.6 in 1898 to 87.9 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Southern counties, which had a death rate of 98.2 per 100,000 population, as compared with a maximum death rate of 93.0 per 100,000 population in the Upper Peninsula in 1899.

In Diagram I (*frontispiece*) a graphic comparison is made of the deaths returned from this cause during the two years 1898 and 1899, distinguishing the months of death and ages of decedents. The returns for 1898 are shown by the blue lines and those for 1899 are printed over in brown on the same scale. The number of deaths for each month and age-period, not the death rate, is indicated. A slight correction would be necessary in an exact comparison for the varying lengths of the months, and the same number of deaths in each of two age-periods might correspond to very different rates of mortality, the latter depending upon the distribution of the population by ages. In general, with an equal number of deaths reported for successive decennial periods of age, the death rates would show an increase, since the population at each age-period usually diminishes from the early years of life, and would do so with considerable uniformity but for the effects of immigration.

OTHER FORMS OF TUBERCULOSIS.

Occurrence in Michigan, 1899.—There were 596 deaths compiled from other forms of tuberculosis in Michigan during the year 1899, corresponding to a death rate of 25.0 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 28, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred during the month of March, namely, 76, and the smallest number, 26, in October.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Northern counties. Stated as death rates per 100,000 population, the greatest mortality from this cause, 39.6, was in the Upper Peninsula, and the least, 21.5, in the Northern counties.

Classified by sex, there were 320 males and 276 females. The largest number of deaths occurred under the age of five years. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 28 with the data given in the corresponding table of the registration report for 1898, it appears that there were 77 less deaths in 1899 from this cause than in 1898. The death rate for the State decreased from 28.6 in 1898 to 25.0 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Upper Peninsula, which had a death rate of 33.1 per 100,000 population, as compared with a maximum death rate of 39.6 in the same section in 1899.

CANCER.

Classification.—The Bertillon classification of causes of death gives the following:

25 A. Cancer of the mouth. *This title includes:* Cancer of the lips, tongue, roof of the mouth, or of the *velum palati*; cancer of the jaw; epithelioma, carcinoma, or canceroid of those parts; smokers' cancer.

25 B. Cancer of the stomach; of the liver. *This title includes:* Cancer of the esophagus; cancer of the cardiac portion of the stomach; cancer of the pylorus; carcinoma; scirrhus, colloid or encephaloid tumor of those parts; gastro-carcinoma; tumor of the stomach.

This title does not include: Organic lesion of the stomach (81); hematemesis (81).

25 C. Cancer of the intestines; of the rectum. *This title includes:* Cancer of the colon; cancer of the anus; carcinoma, scirrhus, encephaloid, canceroid or epithelioma of those parts.

25 D. Cancer of the female genital organs. *This title includes:* Cancer of the womb; cancer of the ovary; cancer of the vagina; cancer of the vulva; carcinoma, scirrhus, encephaloid, colloid, heteromorphous or neoplastic tumor, sarcoma or epithelioma of those organs.

25 E. Cancer of the breast. *This title includes:* Carcinoma, scirrhus, encephaloid, colloid, heteromorphous or neoplastic tumor, canceroid or epithelioma of the breast or mammary gland.

25 F. Cancer of the skin. *This title includes:* Canceroid (without epithet); epithelioma or epithelial tumor (without epithet); cancer of the face or cervicofacial cancer; *noli-me-tangere*.

This title does not include: Lupus (22 D); *esthiomene* (22 D).

25 G. Cancer of other organs. *This title includes:* Cancer of the peritoneum; cancerous peritonitis; pelvic cancer; cancer of the kidney, bladder or prostate; cancerous goitre; thyreo-sarcoma sarco-hydrocele; cancer of bone; osteosarcoma; cancerous tumor or sarcoma of the neck; carcinoma, scirrhus, encephaloid, cancerous ulcer, malignant tumor, sarcoma, or malignant fungus of these parts or of unspecified part of the body.

This title does not include: Cancer of the esophagus (25 B); cancer of the anus (25 C); cancer of the ovary, vagina or vulva (25 D).

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 1,334 deaths compiled from cancer in Michigan during the year 1899, corresponding to a death rate of 55.9 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 29, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred during the month of September, namely, 124, and the smallest number, 95, occurred in May.

Table 29.—Deaths from cancer in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	1,334	55.9	96	114	111	119	96	104	110	111	124	109	123	118
I. Upper Peninsula.....	76	35.0	6	9	7	6	6	4	3	7	9	2	7	10
II. Northern counties....	123	44.7	8	8	7	4	13	14	8	11	11	13	14	12
III. Central counties....	232	50.9	17	19	21	20	23	17	28	20	12	16	26	13
IV. Southern counties....	903	62.8	65	78	76	89	53	69	71	73	92	78	76	83

Deaths by sex, 1899.		Deaths by ages, 1899.*											
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
560	774	1	6	4	10	8	31	96	209	304	357	230	86

* Includes three deaths at unknown ages.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Upper Peninsula. Stated as death rates per 100,000 population, the greatest mortality from this cause, 62.8, was in the Southern counties, and the least, 35.0, in the Upper Peninsula.

Classified by sex, there were 560 males and 774 females. The largest number of deaths occurred in the age-period, 60-69 years. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 29 with the data given in the corresponding table of the registration report for 1898 it appears that there were 13 more deaths from this cause in 1899 than in 1898. The death rate for the State decreased from 56.2 in 1898 to 55.9 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Southern counties, which had a death rate of 64.3 per 100,000 population, as compared with a maximum death rate of 62.8 in the same section in 1899.

In Diagram 4 (*frontispiece*) a graphic comparison is made of the deaths returned from this cause during the two years 1898 and 1899, distinguishing the months of death and ages of decedents. The returns for 1898 are shown by the blue lines and those for 1899 are printed over in brown on the same scale. The number of deaths for each month and age-period, not the death rate, is indicated. A slight correction would be necessary in an exact comparison for the various lengths of the months, and the same number of deaths in each of two age-periods might correspond to very different rates of mortality, the latter depending upon the distribution of the population by ages. In general, with an equal number of deaths reported for successive decennial periods of age, the death rates would show an increase, since the population at each age-period usually diminishes from the early years of life, and would do so with considerable uniformity but for the effects of immigration.

RHEUMATISM.

Classification.—The Bertillon classification of causes of death gives the following:

26. Rheumatism. *This title includes:* Arthritis, rheumatismal arthritis; rheumatismal meningitis; abdominal or cerebral rheumatism; rheumatismal vertigo; rheumatismal endocarditis, pericarditis, pleurisy or peritonitis.

This title does not include: Organic diseases of rheumatismal origin (57, etc.); nodose rheumatism (136); gonorrheal rheumatism (103 A or 114 A).

27. Gout.

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 276 deaths compiled from rheumatism in Michigan during the year 1899, corresponding to a death rate of 11.6 per 100,000 estimated reporting population. The distribution of the deaths by months is shown for the State and geographical sections in Table 30, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred during the month of May, namely, 36, and the smallest number, 12, occurred in November.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Upper Peninsula. Stated as death rates per 100,000 population, the greatest mortality from this cause, 13.1, was in the Southern counties, and the least, 6.9, in the Upper Peninsula.

Classified by sex there were 149 males and 127 females. The largest number of deaths occurred in the age-period 70-79 years. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 30 with the data given in the corresponding table of the registration report for 1898, it appears that there were 71 more deaths in 1899 from this cause than in 1898. The death rate for the State increased from 8.7 in 1898 to 11.6 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Central counties, which had a death rate of 11.1 per 100,000 population, as compared with a maximum death rate of 13.1 in the Southern counties in 1899.

Table 30.—Deaths from rheumatism in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	276	11.6	22	19	28	26	36	24	15	22	24	23	12	25
I. Upper Peninsula.....	15	6.9	2	1	3	.....	2	1	1	2	.....	.....	.....	3
II. Northern counties....	24	8.7	2	.....	3	2	3	2	2	.....	3	3	1	3
III. Central counties....	49	10.8	3	3	7	6	9	2	1	4	8	1	3	2
IV. Southern counties....	188	13.1	15	15	15	18	22	19	11	16	13	19	8	17

Deaths by sex, 1899.					Deaths by ages, 1899.									
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.	
149	127	1	3	17	20	35	14	19	19	41	52	57	19	

DIABETES.

Classification.—The Bertillon classification of causes of death gives the following:

28. Diabetes. *This title includes:* Glycosuria.
Frequent complications: Pneumonia; carbuncle; gangrene; hemorrhage and softening of the brain; tuberculosis.

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 224 deaths compiled from diabetes mellitus in Michigan during the year 1899, corresponding to a death rate of 9.4 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 31, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred during the month of February, namely, 27, and the smallest number, 15, occurred in each of the months, March, June and July.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Upper Peninsula. Stated as death rates per 100,000 population, the greatest mortality from this cause, 11.5 was in the Southern counties, and the least, 3.2, was in the Upper Peninsula.

Classified by sex, there were 141 males and 83 females. The largest number of deaths occurred in the age-period 60-69 years. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Table 31.—Deaths from diabetes mellitus in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	224	9.4	24	27	15	21	16	15	15	19	17	16	21	18
I. Upper Peninsula.....	7	3.2	.....	1	.....	1	1	2	1	.....	.....	.....	1	.....
II. Northern counties....	15	5.5	1	2	2	1	2	1	1	1	1	1	1	1
III. Central counties....	36	7.9	3	4	2	4	.....	3	2	5	3	4	5	1
IV. Southern counties....	166	11.5	20	20	11	15	13	9	11	13	13	11	14	16

Deaths by sex, 1899.		Deaths by ages, 1899.											
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
141	83	1	6	11	17	28	14	14	19	40	51	34	7

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 31 with the data given in the corresponding table of the registration report for 1898, it appears that there were 37 more deaths in 1899 from this cause than in 1898. The death rate for the State increased from 8.0 in 1898 to 9.4 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Southern counties which had a death rate of 9.0 per 100,000 population, as compared with a maximum death rate of 11.5 in the same section in 1899.

MENINGITIS.

Classification.—The Bertillon classification of causes of death gives the following:

39. Simple meningitis. *This title includes:* Meningitis (without epithet); meningo-encephalitis; pachymeningitis; epidemic cerebrospinal meningitis.

This title does not include: Tubercular meningitis or any of its synonyms (22 B); rheumatismal meningitis (26).

Note.—When epidemic cerebrospinal meningitis prevails, it will be necessary to double this title, giving the disease a special line.

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

MENINGITIS.

Occurrence in Michigan, 1899.—There were 231 deaths compiled from meningitis in Michigan during the year 1899, corresponding to a death rate of 9.7, per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 32, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred during the month of March, namely, 29, and the smallest number, 12, occurred in each of the months September and December.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Northern counties. Stated as death rates per 100,000 population, the greatest mortality from this cause, 18.4, was in the Upper Peninsula, and the least, 6.5, in the Northern counties.

Classified by sex, there were 146 males and 85 females. The largest number of deaths occurred under five years of age. In comparing the deaths at the various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 32 with the data given in the corresponding table of the registration report for 1898, it appears that there were 186 less deaths in 1899 from this cause than in 1898. The death rate for the State decreased from 17.7 in 1898 to 9.7 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Upper Peninsula, which had a death rate of 26.5 per 100,000 population, as compared with a maximum death rate of 18.4 in the same section in 1899.

CEREBROSPINAL MENINGITIS.

Occurrence in Michigan, 1899.—There were 820 deaths compiled from cerebrospinal meningitis in Michigan during the year 1899, corresponding to a death rate of 34.4 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 33, together with the age and sex distribution.

Table 32.—Deaths from meningitis in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	231	9.7	22	24	29	26	16	22	19	19	12	16	14	12
I. Upper Peninsula.....	40	18.4	3	6	4	2	2	5	5	4	4	2	2	1
II. Northern counties....	18	6.5	2	.....	4	2	1	.....	4	2	1	1	.....	1
III. Central counties....	31	6.8	4	4	7	2	1	2	2	3	2	2	2	.....
IV. Southern counties....	142	9.9	13	14	14	20	12	15	8	10	5	11	10	10
Deaths by sex, 1899.			Deaths by ages, 1899.											
Males.	Females.		Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
146	85		83	143	16	159	12	19	13	11	9	3	1	4

Table 33.—Deaths from cerebrospinal meningitis in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	820	34.4	41	76	120	182	127	55	52	44	42	26	34	21
I. Upper Peninsula.....	171	78.7	1	10	40	42	29	12	17	5	3	4	5	3
II. Northern counties....	134	48.7	4	15	25	31	24	9	7	7	3	3	5	1
III. Central counties....	138	30.3	8	12	12	39	20	11	6	6	10	5	7	2
IV. Southern counties....	377	26.2	28	39	43	70	54	23	22	26	26	14	17	15
Deaths by sex, 1899.			Deaths by ages, 1899.*											
Males.	Females.		Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
479	341		163	395	107	502	148	64	46	25	12	18	3	1

* Includes one death at unknown age.

For the State as a whole, the largest number of deaths from this cause occurred during the month of April, namely, 182, and the smallest number, 21, occurred in December.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Northern counties. Stated as death rates per 100,000 population, the greatest mortality from this cause, 78.7, was in the Upper Peninsula, and the least, 26.2, in the Southern counties.

Classified by sex there were 479 males and 341 females. The largest number of deaths occurred under five years of age. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 33 with the data given in the corresponding table of the registration report for 1898, it appears that there were 566 more deaths in 1899 from this cause than in 1898. The death rate for the State increased from 10.8 in 1898 to 34.4 in 1899. The highest mortality by geographical sections, from this cause in 1898 was in the Upper Peninsula, which had a death rate of 14.2 per 100,000 population, as compared with a maximum death rate of 78.7 in the same section in 1899.

CEREBRAL CONGESTION AND HEMORRHAGE (APOPLEXY).

Classification.—The Bertillon classification of causes of death gives the following:

42. Congestion and hemorrhage of the brain. *This title includes:* Apoplexy; cerebral apoplexy; meningeal apoplexy; serous apoplexy; cerebral atheroma; edema of the brain; cerebral effusion; meningeal hemorrhage; hemorrhage of the spinal cord; cataplexy; apoplectic dementia.

Frequent complications: Hemiplegia; paralysis.

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 1,225 deaths compiled from cerebral congestion and hemorrhage (apoplexy) in Michigan during the year 1899, corresponding to a death rate of 51.3 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 34, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred during the month of February, namely, 125, and the smallest number, 86, occurred in each of the months May and August.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Upper Peninsula. Stated as death rates per 100,000 population, the greatest mortality from this cause, 60.8, occurred in the Southern counties, and the least, 21.6, in the Upper Peninsula.

Classified by sex, there were 636 males and 589 females. The largest number of deaths occurred in the age-period, 70-79 years. In comparing

the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 34 with the data given in the corresponding table of the registration report for 1898, it appears that there were 81 more deaths in 1899 than in 1898. The death rate for the State increased from 48.7 in 1898 to 51.3 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Southern counties, which had a death rate of 57.5 per 100,000 population, as compared with a maximum death rate of 60.8 in the same section in 1899.

In Diagram I (*frontispiece*) a graphic comparison is made of the deaths returned from this cause during the two years 1898 and 1899, distinguishing the months of death and ages of decedents. The returns for 1898 are shown by the blue lines and those for 1899 are printed over in brown on the same scale. The number of deaths for each month and age-period, not the death rate, is indicated. A slight correction would be necessary in an exact comparison for the varying lengths of the months, and the same number of deaths in each of two age-periods might correspond to very different rates of mortality, the latter depending upon the distribution of the population by ages. In general, with an equal number of deaths reported for successive decennial periods of age, the death rates would show an increase, since the population at each age-period usually diminishes from the early years of life, and would do so with considerable uniformity but for the effects of immigration.

Table 34.—Deaths from cerebral congestion and hemorrhage (apoplexy) in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	1,225	51.3	117	125	112	114	86	92	94	86	92	105	98	104
I. Upper Peninsula.....	47	21.6	.....	9	4	4	4	2	2	5	6	5	4	2
II. Northern counties....	87	31.6	6	6	4	9	10	8	9	6	8	6	10	5
III. Central counties....	216	47.4	14	21	18	18	17	17	18	18	16	16	20	23
IV. Southern counties....	875	60.8	97	89	86	83	55	65	65	57	62	78	64	74

Deaths by sex, 1899.		Deaths by ages, 1899.*											
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
636	589	55	87	12	99	16	25	44	86	180	262	345	164

* Includes four deaths at unknown ages.

PARALYSIS.

Classification.—The Bertillon classification of causes of death gives the following:

44. Paralysis without indicated cause. *This title includes:* Paralysis (without epithet); hemiplegia; paraplegia; facial paralysis; spinal paralysis.

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 842 deaths compiled from paralysis in Michigan during the year 1899, corresponding to a death rate of 35.3 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 35, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred during the month of January, namely, 86, and the smallest number, 56, occurred in each of the months June and July.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Upper Peninsula. Stated as death rates per 100,000 population, the greatest mortality from this cause, 42.3, was in the Southern counties, and the least, 12.4, in the Upper Peninsula.

Classified by sex, there were 417 males and 425 females. The largest number of deaths occurred in the age-period, 70-79 years. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the mortality as affected by age, reference should be made to the death rates based upon population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Table 35.—Deaths from paralysis in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	842	35.3	86	82	78	77	66	56	56	63	70	57	69	82
I. Upper Peninsula.....	27	12.4	2	1	1	2	2	2	3	4	5	2	1	2
II. Northern counties....	73	26.5	5	4	5	7	10	2	12	7	4	3	4	10
III. Central counties....	134	29.4	7	15	12	17	7	13	4	13	11	7	15	13
IV. Southern counties....	608	42.3	72	62	60	51	47	39	37	39	50	45	49	57
Deaths by sex, 1899.			Deaths by ages, 1899.*											
Males.	Females.		Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
417	425		5	10	2	12	5	8	24	32	112	177	295	175

* Includes two deaths at unknown ages.

the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 34 with the data given in the corresponding table of the registration report for 1898, it appears that there were 81 more deaths in 1899 than in 1898. The death rate for the State increased from 48.7 in 1898 to 51.3 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Southern counties, which had a death rate of 57.5 per 100,000 population, as compared with a maximum death rate of 60.8 in the same section in 1899.

In Diagram I (*frontispiece*) a graphic comparison is made of the deaths returned from this cause during the two years 1898 and 1899, distinguishing the months of death and ages of decedents. The returns for 1898 are shown by the blue lines and those for 1899 are printed over in brown on the same scale. The number of deaths for each month and age-period, not the death rate, is indicated. A slight correction would be necessary in an exact comparison for the varying lengths of the months, and the same number of deaths in each of two age-periods might correspond to very different rates of mortality, the latter depending upon the distribution of the population by ages. In general, with an equal number of deaths reported for successive decennial periods of age, the death rates would show an increase, since the population at each age-period usually diminishes from the early years of life, and would do so with considerable uniformity but for the effects of immigration.

Table 34.—Deaths from cerebral congestion and hemorrhage (apoplexy) in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	1,225	51.3	117	125	112	114	86	92	94	86	92	105	98	104
I. Upper Peninsula.....	47	21.6	.....	9	4	4	4	2	2	5	6	5	4	2
II. Northern counties....	87	31.6	6	6	4	9	10	8	9	6	8	6	10	5
III. Central counties....	216	47.4	14	21	18	18	17	17	18	18	16	16	20	23
IV. Southern counties....	875	60.8	97	89	86	83	55	65	65	57	62	78	64	74
Deaths by sex, 1899.			Deaths by ages, 1899.*											
Males.	Females.		Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
636	589		55	87	12	99	16	25	44	86	180	262	345	164

* Includes four deaths at unknown ages.

PARALYSIS.

Classification.—The Bertillon classification of causes of death gives the following:

44. Paralysis without indicated cause. *This title includes:* Paralysis (without epithet); hemiplegia; paraplegia; facial paralysis; spinal paralysis.

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 842 deaths compiled from paralysis in Michigan during the year 1899, corresponding to a death rate of 35.3 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 35, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred during the month of January, namely, 86, and the smallest number, 56, occurred in each of the months June and July.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Upper Peninsula. Stated as death rates per 100,000 population, the greatest mortality from this cause, 42.3, was in the Southern counties, and the least, 12.4, in the Upper Peninsula.

Classified by sex, there were 417 males and 425 females. The largest number of deaths occurred in the age-period, 70-79 years. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the mortality as affected by age, reference should be made to the death rates based upon population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Table 35.—Deaths from paralysis in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	842	35.3	86	82	78	77	66	56	56	63	70	57	69	82
I. Upper Peninsula.....	27	12.4	2	1	1	2	2	2	3	4	5	2	1	2
II. Northern counties....	73	26.5	5	4	5	7	10	2	12	7	4	3	4	10
III. Central counties....	134	29.4	7	15	12	17	7	13	4	13	11	7	15	13
IV. Southern counties....	608	42.3	72	62	60	51	47	39	37	39	50	45	49	57
Deaths by sex, 1899.		Deaths by ages, 1899.*												
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.	
417	425	5	10	2	12	5	8	24	32	112	177	296	175	

* Includes two deaths at unknown ages.

Classified by sex, there were 271 males and 192 females. The largest number of deaths occurred under the age of five years. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon the population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 36 with the data given in the corresponding table of the registration report for 1898, it appears that there were 52 less deaths in 1899 from this cause than in 1898. The death rate for the State decreased from 22.0 in 1898 to 19.4 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Upper Peninsula, which had a death rate of 28.9 per 100,000 population, as compared with a maximum death rate of 34.5 in the same section in 1899.

ORGANIC HEART DISEASES.

Classification.—The Bertillon classification of causes of death gives the following:

57. Organic diseases of the heart. *This title includes:* Aortic, mitral, tricuspid, cardiac, or valvular affections or lesions; insufficiency; stenosis; Corrigan's disease; cardiac cachexia, hypertrophy of the heart; dilatation of the heart; cardiectasis; steatosis of the heart; degeneration of the heart; cardiopathy; cardiosclerosis; cardiovascular sclerosis; cardiomalacia; persistent foramen ovale; palpitation of the heart; asystole; cardiac asthma; blue baby.

This title does not include: Heart affections (undetermined character) (66).

Frequent complications: Dropsy; bronchitis and pneumonia; albuminuria; embolism; thrombosis.

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 2,227 death compiled from organic heart disease in Michigan during the year 1899, corresponding to a death rate of 93.3 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 37, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred during the month of January, namely, 212, while the smallest number, 161, occurred in October.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Upper Peninsula. Stated as death rates per 100,000 population, the greatest mortality from this cause, 109.2, was in the Southern counties, and the least, 54.3, in the Upper Peninsula.

Classified by sex, there were 1,256 males and 971 females. The largest number of deaths occurred in the age-period, 70-79 years. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 37 with the data given in the corresponding table of the registration report for 1898, it appears that there were 211 more deaths in 1899 from this cause than in 1898. The death rate for the State increased from 85.8 in 1898 to 93.3 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Southern counties, which had a death rate of 100.4 per 100,000 population, as compared with a maximum death rate of 109.2 in the same section in 1899.

In Diagram I (*frontispiece*) a graphic comparison is made of the deaths returned from this cause during the two years 1898 and 1899, distinguishing the months of death and ages of decedents. The returns for 1898 are shown by the blue lines and those for 1899 are printed over in brown on the same scale. The number of deaths for each month and age-period, not the death rate, is indicated. A slight correction would be necessary in an exact comparison for the varying lengths of the months, and the same number of deaths in each of two age-periods might correspond to very different rates of mortality, the latter depending upon the distribution of the population by ages. In general, with an equal number of deaths reported for successive decennial periods of age, the death rates would show an increase, since the population at each age-period usually diminishes from the early years of life, and would do so with considerable uniformity but for the effects of immigration.

Table 37.—Deaths from organic heart diseases in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	2,227	93.3	212	199	171	207	191	178	169	170	163	161	196	210
I. Upper Peninsula.....	118	54.3	21	8	4	13	6	12	14	11	10	5	7	7
II. Northern counties...	169	61.4	14	16	11	15	21	16	8	14	12	10	17	15
III. Central counties....	370	81.3	30	25	30	35	37	26	34	19	29	19	37	49
IV. Southern counties....	1,570	109.2	147	150	126	144	127	124	113	126	112	127	135	139
Deaths by sex, 1899.*			Deaths by ages, 1899.†											
Males.	Females.		Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
1,256	971		130	142	21	163	53	63	109	151	299	492	638	253

* Includes one death of unknown sex.

† Includes six deaths at unknown ages.

BRONCHITIS.

Classification.—The Bertillon classification of causes of death gives the following:

69. Acute bronchitis. *This title includes:* Capillary bronchitis; trachitis; tracheo-bronchitis; broncho-alveolitis.

This title does not include: Broncho-pneumonia (71); specific bronchitis or any other synonym of tuberculosis of the lungs (see 22 A); fetid bronchitis (75); summer bronchitis (76).

Note.—See note under No. 70.

70. Chronic bronchitis. *This title includes:* Catarrhal bronchitis; catarrh (without epithet); bronchial, pituitary, pulmonary or suffocative catarrh; bronchorrhea; dilatation of the bronchi; bronchiectasis.

This title does not include: Fetid bronchitis (75).

Note.—Certificates of death in which the word *bronchitis* is not definitely stated to be acute or chronic should be referred to the physician for an exact statement. When it is not possible to obtain one, deaths of children should be classified under No 69, and deaths of adults and old persons under No. 70.

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 785 deaths compiled from bronchitis in Michigan during the year 1899, corresponding to a death rate of 32.9 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 38, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred during the month of February, namely, 119, and the smallest number, 31, occurred in August.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Northern counties. Stated as death rates per 100,000 population, the greatest mortality from this cause, 50.6, was in the Upper Peninsula, and the least, 25.5, in the Central counties.

Table 38.—Deaths from bronchitis* in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	785	32.9	109	119	114	90	59	38	27	31	33	43	55	67
I. Upper Peninsula.....	110	50.6	16	11	12	17	12	8	5	2	7	4	11	5
II. Northern counties....	78	28.4	13	10	12	6	6	3	3	3	6	1	4	11
III. Central counties....	114	25.5	11	24	18	10	14	7	2	4	6	6	5	7
IV. Southern counties....	483	33.6	69	74	72	57	27	20	17	22	14	32	35	44
Deaths by sex, 1899.			Deaths by ages, 1899.†											
Males.	Females		Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
406	379		299	409	7	416	12	11	14	18	42	70	120	81

* Including acute bronchitis and chronic bronchitis.

† Includes one death at unknown age.

Classified by sex, there were 406 males and 379 females. The largest number of deaths occurred under five years of age. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 38 with the data given in the corresponding table of the registration report for 1898, it appears that there were 142 more deaths in 1899 from this cause than in 1898. The death rate for the State increased from 27.4 in 1898 to 32.9 in 1899. The highest mortality by geographical sections, from this cause in 1898 was in the Upper Peninsula, which had a death rate of 45.4 per 100,000 population, as compared with a maximum death rate of 50.6 in the same section in 1899.

BRONCHO-PNEUMONIA.

Classification.—The Bertillon classification of causes of death gives the following:

71. Broncho-pneumonia. *This title does not include:* Capillary bronchitis (69).

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 287 deaths compiled from broncho-pneumonia in Michigan during the year 1899, corresponding to a death rate of 12.0 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 39, together with the age and sex distribution.

Table 39.—Deaths from broncho-pneumonia in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	287	12.0	27	51	64	34	26	7	9	8	5	14	19	23
I. Upper Peninsula.....	53	24.4	5	8	9	4	12	3	3	1	.....	2	1	5
II. Northern counties....	31	11.3	2	8	4	4	3	2	1	2	1	3	1	.....
III. Central counties....	39	8.6	5	5	10	5	2	.....	2	2	.....	3	.....	5
IV. Southern counties....	164	11.4	15	30	41	21	9	2	3	3	4	6	17	13
Deaths by sex, 1899.		Deaths by ages, 1899.												
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.	
162	125	129	210	5	215	5	1	4	4	7	11	23	17	

For the State as a whole, the largest number of deaths from this cause occurred during the month of March, namely, 64, and the smallest number, five, occurred in September.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Northern counties. Stated as death rates per 100,000 population, the greatest mortality from this cause, 24.4, was in the Upper Peninsula, and the least, 8.6, in the Central counties.

Classified by sex, there were 162 males and 125 females. The largest number of deaths occurred under five years of age. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 39 with the data given in the corresponding table of the registration report for 1898, it appears that there were 45 more deaths in 1899 from this cause than in 1898. The death rate for the State increased from 10.3 in 1898 to 12.0 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Upper Peninsula, which had a death rate of 26.0 per 100,000 population, as compared with a maximum death rate of 24.4 in the same section for 1899.

PNEUMONIA.

Classification.—The Bertillon classification of causes of death gives the following:

72. Pneumonia. *This title includes:* Acute pulmonary catarrh; interstitial pneumonia; cirrhosis of the lung; pulmonary sclerosis; spleno-pneumonia; pneumonia of the apex; peripneumonia; pneumopericarditis; typhoid pneumonia.

This title does not include: Caseous pneumonia (22 A); specific pneumonia (22 A); bacillary pneumonia (22 A), or any other synonym of tuberculosis of the lungs (see 22 A); pleuro-pneumonia (73); pulmonary congestion (74).

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 2,192 deaths compiled from pneumonia in Michigan during the year 1899, corresponding to a death rate of 91.9 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 40, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred during the month of February, namely, 488, and the smallest number, 44, in July.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Northern counties. Stated as death rates per 100,000 population, the greatest mortality from this cause, 100.8, was in the Upper Peninsula, and the least, 72.0, in the Northern counties.

Classified by sex, there were 1,226 males and 966 females. The largest number of deaths occurred under five years of age. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents

at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon population of corresponding ages, as given in Table 19 for each of the age-periods shown here.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 40 with the data given in the corresponding table of the registration report for 1898, it appears that there were 387 more deaths in 1899 from this cause than in 1898. The death rate for the State increased from 76.8 in 1898 to 91.9 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Southern counties, which had a death rate of 84.6 per 100,000 population, as compared with a maximum death rate of 100.8 in the Upper Peninsula in 1899.

In Diagram I (*frontispiece*) a graphic comparison is made of the deaths returned from this cause during the two years 1898 and 1899, distinguishing the months of death and ages of decedents. The returns for 1898 are shown by the blue lines and those for 1899 are printed over in brown on the same scale. The number of deaths for each month and age-period, not the death rate, is indicated. A slight correction would be necessary in an exact comparison for the various lengths of the months, and the same number of deaths in each of two age-periods might correspond to very different rates of mortality, the latter depending upon the distribution of the population by ages. In general, with an equal number of deaths reported for successive decennial periods of age, the death rates would show an increase, since the population at each age-period usually diminishes from the early years of life, and would do so with considerable uniformity but for the effects of immigration.

Table 40.—Deaths from pneumonia in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	2,192	91.9	337	488	350	272	149	70	44	49	57	102	117	157
I. Upper Peninsula.....	219	100.8	29	31	21	31	22	16	8	7	5	16	12	21
II. Northern counties....	198	72.0	30	37	33	26	12	6	3	6	2	12	17	14
III. Central counties....	384	84.3	63	92	69	48	30	10	5	9	6	14	15	23
IV. Southern counties....	1,391	96.7	215	328	227	167	85	38	28	27	44	60	73	99

Deaths by sex, 1899.		Deaths by ages, 1899.*											
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
1,226	966	519	770	44	814	90	137	158	161	180	251	260	136

* Includes five deaths at unknown ages.

PLEURISY.

Classification.—The Bertillon classification of causes of death gives the following:

73. Pleurisy. *This title includes:* Pleuro-pneumonia; pneumo-pleurisy; pleuro-pericarditis; pleuritic or thoracic effusion; hydro-pneumo-thorax; pyothorax; pleural abscess; pneumo-pyothorax; hemothorax; thoracentesis; empyema; pulmonary adhesion.

This title does not include: Pleurodynia (77 B); pneumo-thorax (77 B).

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 134 deaths compiled from pleurisy in Michigan during the year 1899, corresponding to a death rate of 5.6 per 100,000 estimated reporting population. The distribution of these death by months is shown for the State and geographical sections in Table 41, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred during the month of February, namely, 22, and the smallest number, 5, occurred in each of the months July and October.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Upper Peninsula. Stated as death rates per 100,000 population, the greatest mortality from this cause, 6.5, was in the Northern counties, and the least, 3.3, in the Central counties.

Classified by sex, there were 68 males and 66 females. The largest number of deaths occurred in the age-period, 60-69 years. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rate based upon population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Table 41.—Deaths from pleurisy in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	134	5.6	16	22	20	14	10	11	5	8	8	5	8	7
I. Upper Peninsula.....	11	5.1	3	1	1	.....	.....	1	1	2	.....	.....	2	.....
II. Northern counties....	18	6.5	3	1	2	.....	4	1	2	.....	3	.....	.....	2
III. Central counties....	15	3.3	3	1	4	2	1	3	.....	.....	1	.....	.....	.....
IV. Southern counties....	90	6.3	7	19	13	12	5	6	2	6	4	5	6	5

Deaths by sex, 1899.		Deaths by ages, 1899.											
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
68	66	4	13	.....	13	11	13	23	21	10	27	11	5

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 41 with the data given in the corresponding table of the registration report for 1898, it appears that there were 27 more deaths from this cause in 1899 than in 1898. The death rate for the State increased from 4.5 in 1898 to 5.6 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Southern counties, which had a death rate of 5.7 per 100,000 population, as compared with a maximum death rate of 6.5 in the Northern counties in 1899.

DISEASES OF THE STOMACH.

Classification.—The Bertillon classification of causes of death gives the following :

80. Ulcer of the stomach. *This title includes: Ulcus rotundum* (round ulcer of the stomach).

Frequent complications: Hematemesis, perforation of the stomach, peritonitis.

81. Other diseases of the stomach (cancer excluded). *This title includes:* Dilatation of the stomach; dyspepsia; aepsia; gastritis; gastro-hepatitis; foreign body in the stomach; gastrotomy; non-traumatic perforation of the stomach; gastralgia; *vertigo a stomacho lasso*; catarrh of the stomach; gastrorrhea; indigestion. Also the following in which the nature of the disease affecting the stomach is not clearly defined: Organic lesion of the stomach; gastrorrhagia; hematemesis; hemorrhage from the stomach.

This title does not include: Gastro-enteritis (82 or 83 according to age).

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 550 deaths compiled from stomach diseases in Michigan during the year 1899, corresponding to a death rate of 23.1 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 42, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred during the month of May, namely, 55, and the smallest number, 37, occurred in each of the months January and March.

Table 42.—Deaths from stomach diseases in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	550	23.1	37	53	37	43	55	45	50	52	48	44	39	47
I. Upper Peninsula.....	40	18.4	7	3	.....	9	5	3	6	.....	3	2	1	1
II. Northern counties....	78	28.4	8	6	3	5	9	5	7	10	5	6	9	5
III. Central counties....	89	19.5	4	10	7	7	8	10	5	7	7	8	7	9
IV. Southern counties....	343	23.9	18	34	27	22	33	27	32	35	33	28	22	32
Deaths by sex, 1899.			Deaths by ages, 1899.*											
Males.	Females.		Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
285	265		117	140	6	146	16	22	20	51	65	86	93	48

* Includes three deaths at unknown age

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Upper Peninsula. Stated as death rates per 100,000 population, the greatest mortality from this cause, 28.4, was in the Northern counties, and the least, 18.4, in the Upper Peninsula.

Classified by sex there were 285 males and 265 females. The largest number of deaths occurred under five years of age. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 42 with the data given in the corresponding table of the registration report for 1898, it appears that there were 66 more deaths in 1899 from this cause than in 1898. The death rate for the State increased from 20.6 in 1898 to 23.1 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Southern counties, which had a death rate of 22.1 per 100,000 population, as compared with a maximum death rate of 28.4 in the Northern counties in 1899.

DIARRHEA AND ENTERITIS.

Classification.—The Bertillon classification of causes of death gives the following:

82. Infantile diarrhea; athrepsia. *This title includes:* Gastro-enteritis or gastro-collitis of infants; infantile enteritis; cholera infantum.

83. Diarrhea and enteritis. *This title includes:* Gastro-enteritis or gastro-collitis of adults; enteritis of adults; diarrhea of adults; lentergy; intestinal ulcerations; colitis; intestinal colic; flatulent colic; inflammatory colic.

This title does not include: Tubercular enteritis (22 E).

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 2,308 deaths compiled from diarrhea and enteritis in Michigan during the year 1899, corresponding to a death rate of 96.8 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 43, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred during the month of September, namely, 562, and the smallest number, 69, occurred in March.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Northern counties. Stated as death rates per 100,000 population, the greatest mortality from this cause, 162.9, was in the Upper Peninsula, and the least, 85.4, in the Central counties.

Classified by sex, there were 1,296 males and 1,012 females. The largest number of deaths occurred under five years of age. In comparing the deaths at various age-periods, it should be remembered that the age

distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 43 with the data given in the corresponding table of the registration report for 1898, it appears that there were 212 more deaths in 1899 than in 1898. The death rate for the State increased from 89.2 in 1898 to 96.8 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Upper Peninsula, which had a death rate of 139.5 per 100,000 population, as compared with a maximum death rate of 162.9 in the same section in 1899.

In Diagram I (*frontispiece*) a graphic comparison is made of the deaths returned from this cause during the two years 1898 and 1899, distinguishing the months of death and the ages of decedents. The returns for 1898 are shown by the blue lines and those for 1899 are printed over in brown on the same scale. The number of deaths for each month and age-period, not the death rate, is indicated. A slight correction would be necessary in an exact comparison for the varying lengths of the months, and the same number of deaths in each of two age-periods might correspond to very different rates of mortality, the latter depending upon the distribution of the population by ages. In general, with an equal number of deaths reported for successive decennial periods of age, the death rates would show an increase, since the population at each age-period usually diminishes from the early years of life, and would do so with considerable uniformity but for the effects of immigration.

Table 43.—Deaths from diarrhea and enteritis in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	2,308	96.8	74	70	69	87	78	187	294	552	561	174	87	75
I. Upper Peninsula.....	354	162.9	12	7	9	13	12	11	34	114	103	22	3	14
II. Northern counties....	295	107.3	5	12	10	7	10	7	17	83	102	19	11	12
III. Central counties....	389	85.4	10	13	10	9	14	22	35	108	116	26	20	6
IV. Southern counties....	1,270	88.4	47	38	40	58	42	147	208	247	240	107	53	43
Deaths by sex, 1899.			Deaths by ages, 1899.											
Males.	Females.		Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
1,296	1,012		1,425	1,880	28	1,908	20	21	28	27	41	78	120	65

DYSENTERY.

Classification.—The Bertillon classification of causes of death gives the following:

84. Dysentery. *This title includes:* Dysentery of Cochín China; epidemic dysentery.

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 178 deaths compiled from dysentery in Michigan during the year 1899, corresponding to a death rate of 7.5 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 44, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred during the month of September, namely, 57, and the smallest number, two, occurred in February.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Upper Peninsula. Stated as death rates per 100,000 population, the greatest mortality from this cause, 8.1, was in the Southern counties, and the least, 4.1, was in the Upper Peninsula.

Classified by sex, there were 73 males and 105 females. The largest number of deaths occurred under five years of age. In comparing the deaths at various age-periods, it should be remembered that the age distribution of population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon the population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Table 44.—Deaths from dysentery in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	178	7.5	3	2	6	6	3	3	24	43	57	24	4	3
I. Upper Peninsula.....	9	4.1	.....	.....	1	1	.....	.....	2	1	3	1	.....	.....
II. Northern counties....	18	6.5	1	.....	1	1	1	.....	1	6	5	.....	.....	2
III. Central counties....	34	7.5	1	.....	.....	1	.....	.....	5	7	13	7	.....	.....
IV. Southern counties....	117	8.1	1	2	4	3	2	3	16	29	36	16	4	1
Deaths by sex, 1899.		Deaths by ages, 1899.												
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.	
73	105	28	66	1	67	2	1	4	5	12	18	41	28	

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 44 with the data given in the corresponding table of the registration report for 1898, it appears that there were 28 more deaths in 1899 from this cause than in 1898. The death rate for the State increased from 6.4 in 1898 to 7.5 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Northern counties, which had a death rate of 9.6 per 100,000 population, as compared with a maximum death rate of 8.1 in the Southern counties in 1899.

DISEASES OF THE LIVER.

Classification.—The Bertillon classification of causes of death gives the following:

88. Icterus gravis. *This title includes:* Acute yellow atrophy of the liver; parenchymatous hepatitis; Weil's disease.

This title does not include: Icterus or jaundice (without epithet) (92); chronic jaundice (92); *icterus neonatorum* (138).

89. Hydatid tumors of the liver. *This title includes the following diseases of which the seat is not indicated:* Hydatid cyst; hydatids; echinococci.

90. Cirrhosis of the liver. *This title includes:* Cirrhosis (without epithet); alcoholic cirrhosis; interstitial cirrhosis; amyloid or fatty degeneration of the liver; steatosis of the liver; alcoholic, or interstitial, or chronic hepatitis.

This title does not include: Organic lesion of the liver (92); hypertrophy of the liver (92).

Frequent complications: Dropsy; hemorrhage; pneumonia; tuberculosis.

91. Biliary calculi. *This title includes:* Hepatic calculi; biliary lithiasis; hepatic colic.

92. Other diseases of the liver. *This title includes:* Hepatitis; acute hepatitis; angio-cholitis; cholecystitis; hepatocystitis; choluria. *It also includes the following ill-defined diseases:* Organic disease of the liver; tumor of the liver; hypertrophy of the liver; alcoholia; cholemla; icterus; chronic icterus; jaundice; hepatic congestion.

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III. p. 20, Table IV. p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 496 deaths compiled from liver diseases in Michigan during the year 1899, corresponding to a death rate of 20.8 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 45, together with the age and sex distribution.

Table 45.—Deaths from liver diseases in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	496	20.8	30	39	46	46	45	38	46	48	36	37	39	46
I. Upper Peninsula.....	23	10.6	2	.....	5	1	1	.....	2	.....	1	5	2	4
II. Northern counties....	47	17.1	4	5	4	3	1	4	5	3	7	2	5	4
III. Central counties....	85	18.7	7	7	4	5	9	4	6	16	7	6	9	5
IV. Southern counties....	341	23.7	17	27	33	37	34	30	33	29	21	24	23	33
Deaths by sex, 1899.			Deaths by ages, 1899.											
Males.	Females.		Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
271	225		16	25	4	29	10	21	35	75	83	107	106	30

For the State as a whole, the largest number of deaths from this cause occurred during the month of August, namely, 48, and the smallest number, 30, occurred in January.

Considered by geographical sections, the largest number of deaths was in the Southern counties and the smallest number in the Upper Peninsula. Stated as death rates per 100,000 population, the greatest mortality from this cause, 23.7, was in the Southern counties, and the least, 10.6, in the Upper Peninsula.

Classified by sex, there were 271 males and 225 females. The largest number of deaths occurred in the age-period, 60-69 years. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 45 with the data given in the corresponding table of the registration report for 1898, it appears that there were 19 more deaths from this cause in 1899 than in 1898. The death rate for the State increased from 20.3 in 1898 to 20.8 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Southern counties, which had a death rate of 22.5 per 100,000 population, as compared with a maximum death rate of 23.7 in the same section in 1899.

PERITONITIS.

Classification.—The Bertillon classification of causes of death gives the following:

93. Inflammatory peritonitis (non-puerperal). *This title includes:* Peritonitis (without epithet); chronic peritonitis; peritoneal adhesion; epiploitis; metropéritonitis; pelvic peritonitis.

This title does not include: Tubercular peritonitis (22 C); cancer of the peritoneum (25 G); puerperal peritonitis (120); rheumatismal peritonitis (26).

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 306 deaths compiled from peritonitis in Michigan during the year 1899, corresponding to a death rate of 12.8 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 46, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred during the month of February, namely, 35, and the smallest number, 18, occurred in December.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Upper Peninsula. Stated as death rates per 100,000 population, the greatest mortality from this cause, 13.3, was in the Upper Peninsula, and the least, 10.9, in the Northern counties.

Classified by sex, there were 114 males and 192 females. The largest number of deaths occurred in the age-period, 20-29 years. In comparing the deaths at various age-periods, it should be remembered that the age

distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 43 with the data given in the corresponding table of the registration report for 1898, it appears that there were 212 more deaths in 1899 than in 1898. The death rate for the State increased from 89.2 in 1898 to 96.8 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Upper Peninsula, which had a death rate of 139.5 per 100,000 population, as compared with a maximum death rate of 162.9 in the same section in 1899.

In Diagram I (*frontispiece*) a graphic comparison is made of the deaths returned from this cause during the two years 1898 and 1899, distinguishing the months of death and the ages of decedents. The returns for 1898 are shown by the blue lines and those for 1899 are printed over in brown on the same scale. The number of deaths for each month and age-period, not the death rate, is indicated. A slight correction would be necessary in an exact comparison for the varying lengths of the months, and the same number of deaths in each of two age-periods might correspond to very different rates of mortality, the latter depending upon the distribution of the population by ages. In general, with an equal number of deaths reported for successive decennial periods of age, the death rates would show an increase, since the population at each age-period usually diminishes from the early years of life, and would do so with considerable uniformity but for the effects of immigration.

Table 43.—Deaths from diarrhea and enteritis in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	2,308	96.8	74	70	69	87	78	187	294	552	561	174	87	75
I. Upper Peninsula.....	354	162.9	12	7	9	13	12	11	34	114	103	22	3	14
II. Northern counties....	295	107.3	5	12	10	7	10	7	17	83	102	19	11	12
III. Central counties....	389	85.4	10	13	10	9	14	22	35	108	116	26	20	6
IV. Southern counties....	1,270	88.4	47	38	40	58	42	147	208	247	240	107	53	43
Deaths by sex, 1899.			Deaths by ages, 1899.											
Males.	Females.		Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
1,296	1,012		1,425	1,880	28	1,908	20	21	28	27	41	78	120	65

DYSENTERY.

Classification.—The Bertillon classification of causes of death gives the following:

84. Dysentery. *This title includes:* Dysentery of Cochín China; epidemic dysentery.

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 178 deaths compiled from dysentery in Michigan during the year 1899, corresponding to a death rate of 7.5 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 44, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred during the month of September, namely, 57, and the smallest number, two, occurred in February.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Upper Peninsula. Stated as death rates per 100,000 population, the greatest mortality from this cause, 8.1, was in the Southern counties, and the least, 4.1, was in the Upper Peninsula.

Classified by sex, there were 73 males and 105 females. The largest number of deaths occurred under five years of age. In comparing the deaths at various age-periods, it should be remembered that the age distribution of population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon the population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Table 44.—Deaths from dysentery in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	178	7.5	3	2	6	6	3	3	24	43	57	24	4	3
I. Upper Peninsula.....	9	4.1	.....	.....	1	1	.....	.....	2	1	3	1	.....	.....
II. Northern counties....	18	6.5	1	.....	1	1	1	.....	1	6	5	.....	.....	2
III. Central counties....	34	7.5	1	.....	.....	1	.....	.....	5	7	13	7	.....	.....
IV. Southern counties....	117	8.1	1	2	4	3	2	3	16	29	36	16	4	1

Deaths by sex, 1899.		Deaths by ages, 1899.											
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
73	105	28	66	1	67	2	1	4	5	12	18	41	28

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 44 with the data given in the corresponding table of the registration report for 1898, it appears that there were 28 more deaths in 1899 from this cause than in 1898. The death rate for the State increased from 6.4 in 1898 to 7.5 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Northern counties, which had a death rate of 9.6 per 100,000 population, as compared with a maximum death rate of 8.1 in the Southern counties in 1899.

DISEASES OF THE LIVER.

Classification.—The Bertillon classification of causes of death gives the following:

88. Icterus gravis. *This title includes:* Acute yellow atrophy of the liver; parenchymatous hepatitis; Weil's disease.

This title does not include: Icterus or jaundice (without epithet) (92); chronic jaundice (92); *icterus neonatorum* (138).

89. Hydatid tumors of the liver. *This title includes the following diseases of which the seat is not indicated:* Hydatid cyst; hydatids; echinococci.

90. Cirrhosis of the liver. *This title includes:* Cirrhosis (without epithet); alcoholic cirrhosis; interstitial cirrhosis; amyloid or fatty degeneration of the liver; steatosis of the liver; alcoholic, or interstitial, or chronic hepatitis.

This title does not include: Organic lesion of the liver (92); hypertrophy of the liver (92).

Frequent complications: Dropsy; hemorrhage; pneumonia; tuberculosis.

91. Biliary calculi. *This title includes:* Hepatic calculi; biliary lithiasis; hepatic colic.

92. Other diseases of the liver. *This title includes:* Hepatitis; acute hepatitis; angio-cholitis; cholecystitis; hepatocystitis; choluria. *It also includes the following ill-defined diseases:* Organic disease of the liver; tumor of the liver; hypertrophy of the liver; alcholia; cholemia; icterus; chronic icterus; jaundice; hepatic congestion.

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 496 deaths compiled from liver diseases in Michigan during the year 1899, corresponding to a death rate of 20.8 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 45, together with the age and sex distribution.

Table 45.—Deaths from liver diseases in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	496	20.8	30	39	46	46	45	38	46	48	36	37	39	46
I. Upper Peninsula.....	23	10.6	2	.....	5	1	1	.....	2	.....	1	5	2	4
II. Northern counties....	47	17.1	4	5	4	3	1	4	5	3	7	2	5	4
III. Central counties....	85	18.7	7	7	4	5	9	4	6	16	7	6	9	5
IV. Southern counties....	341	23.7	17	27	33	37	34	30	33	29	21	24	23	23

Deaths by sex, 1899.		Deaths by ages, 1899.											
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
271	225	16	25	4	29	10	21	35	75	83	107	106	30

For the State as a whole, the largest number of deaths from this cause occurred during the month of August, namely, 48, and the smallest number, 30, occurred in January.

Considered by geographical sections, the largest number of deaths was in the Southern counties and the smallest number in the Upper Peninsula. Stated as death rates per 100,000 population, the greatest mortality from this cause, 23.7, was in the Southern counties, and the least, 10.6, in the Upper Peninsula.

Classified by sex, there were 271 males and 225 females. The largest number of deaths occurred in the age-period, 60-69 years. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 45 with the data given in the corresponding table of the registration report for 1898, it appears that there were 19 more deaths from this cause in 1899 than in 1898. The death rate for the State increased from 20.3 in 1898 to 20.8 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Southern counties, which had a death rate of 22.5 per 100,000 population, as compared with a maximum death rate of 23.7 in the same section in 1899.

PERITONITIS.

Classification.—The Bertillon classification of causes of death gives the following:

93. Inflammatory peritonitis (non-puerperal). *This title includes:* Peritonitis (without epithet); chronic peritonitis; peritoneal adhesion; epiploitis; metropéritonitis; pelvic peritonitis.

This title does not include: Tubercular peritonitis (22 C); cancer of the peritoneum (25 G); puerperal peritonitis (120); rheumatismal peritonitis (26).

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 306 deaths compiled from peritonitis in Michigan during the year 1899, corresponding to a death rate of 12.8 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 46, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred during the month of February, namely, 35, and the smallest number, 18, occurred in December.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Upper Peninsula. Stated as death rates per 100,000 population, the greatest mortality from this cause, 13.3, was in the Upper Peninsula, and the least, 10.9, in the Northern counties.

Classified by sex, there were 114 males and 192 females. The largest number of deaths occurred in the age-period, 20-29 years. In comparing the deaths at various age-periods, it should be remembered that the age

distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by ages, reference should be made to the death rates based upon population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 46 with the data given in the corresponding table of the registration report for 1898, it appears that there were 22 more deaths in 1899 from this cause than in 1898. The death rate for the State increased from 12.1 in 1898 to 12.8 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Southern counties, which had a death rate of 14.0 per 100,000 population, as compared with a maximum death rate of 13.3 in the Upper Peninsula in 1899.

Table 46.—Deaths from peritonitis in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	306	12.8	23	35	31	28	24	19	22	33	19	32	22	18
I. Upper Peninsula.....	29	13.3	2	2	4	2	3	4	3	2	2	2	2	1
II. Northern counties....	30	10.9	5	2	2	4	2	2	.....	4	2	4	.....	2
III. Central counties....	57	12.5	.....	*5	4	2	9	4	6	9	6	6	4	2
IV. Southern counties....	190	13.2	16	26	21	20	9	9	13	18	9	20	16	13

Deaths by sex, 1899.			Deaths by ages, 1899.*											
Males.	Females.		Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
114	192		19	35	29	64	33	68	44	24	31	23	16	2

* Includes one death at unknown age.

ILIAC ABSCESS.

Classification.—The Bertillon classification of causes of death gives the following:

95. Abscess of the iliac fossa. *This title includes:* Iliac phlegmon or abscess; typhlitis; perityphlitis; typhlo-dieliditis; appendicitis.

This title does not include: Abscess of the pelvis (107); periuterine abscess (107); pelvic suppuration (107).

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 223 deaths compiled from iliac abscess in Michigan during the year 1899, corresponding to a death rate of 9.3 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections, in Table 47 together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred during the month of April, namely, 26, and the smallest number, 13, occurred in September.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Northern counties. Stated as death rates per 100,000 population, the greatest mortality from this cause, 11.5, was in the Upper Peninsula, and the least, 8.4, in the Northern counties.

Classified by sex, there were 136 males and 87 females. The largest number of deaths occurred in the age-period, 10-19 years. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon the population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 47 with the data given in the corresponding table of the registration report for 1898, it appears that there were 58 more deaths in 1899 from this cause than in 1898. The death rate for the State increased from 7.0 in 1898 to 9.3 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Southern counties, which had a death rate of 8.0 per 100,000 population, as compared with a maximum death rate of 11.5 in the Upper Peninsula in 1899.

Table 47.—Deaths from iliac abscess (appendicitis) in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	223	9.3	20	15	22	26	21	15	16	16	13	23	20	16
I. Upper Peninsula.....	25	11.5	2	.....	2	7	4	1	1	1	2	3	1	1
II. Northern counties....	23	8.4	3	1	1	.....	2	1	2	1	1	4	6	1
III. Central counties....	47	10.3	4	9	5	2	5	3	4	2	.....	4	5	4
IV. Southern counties....	128	8.9	11	5	14	17	10	10	9	12	10	12	8	10
Deaths by sex, 1899.		Deaths by ages, 1899.												
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.	
136	87	1	6	30	36	68	50	20	25	6	12	3	3	

BRIGHT'S DISEASE.

Classification.—The Bertillon classification of causes of death gives the following:

97. Bright's disease. *This title includes:* Chronic, albuminous, interstitial or parenchymatous nephritis; albuminuria; amyloid or fatty degeneration of the kidneys; amyloid kidney; steatosis of the kidneys; renal sclerosis. *It also includes the following indefinite statements:* Uremia; uremic convulsions; uremic delirium.

This title does not include: Organic diseases of the kidneys (100); puerperal uremia (121); cardiac albuminuria (57).

Frequent complications: Anasarca; dropsy; convulsions; hemorrhage; cerebral apoplexy; pneumonia.

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised international classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 965 deaths compiled from Bright's disease in Michigan during the year 1899, corresponding to a death rate of 40.4 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 48, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred during the month of January, namely, 98, and the smallest number, 65, in September.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Upper Peninsula. Stated as death rates per 100,000 population, the greatest mortality from this cause, 47.8, was in the Southern counties, and the least, 25.8, in the Northern counties.

Classified by sex, there were 575 males and 390 females. The largest number of deaths occurred in the age-period, 60-69 years. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon the population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in table 48 with the data given in the corresponding table of the registration report for 1898, it appears that there were 50 more deaths in 1899 from this cause than in 1898. The death rate for the State increased from 38.9 in 1898 to 40.4 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Southern counties, which had a death rate of 45.5 per 100,000 population, as compared with a maximum death rate of 47.8 in the same section in 1899.

In Diagram I (*frontispiece*) a graphic comparison is made of the deaths returned from this cause during the two years 1898 and 1899, distinguishing the months of death and ages of decedents. The returns for 1898 are shown by the blue lines and those for 1899 are printed over in brown on the same scale. The number of deaths for each month and age-period, not the death rate, is indicated. A slight correction would be necessary in an exact comparison for the varying lengths of the months, and the same number of deaths in each of two age-periods might correspond to very different rates of mortality, the latter depending upon the distribution of the population by ages. In general, with an equal

number of deaths reported for successive decennial periods of age, the death rates would show an increase, since the population at each age-period usually diminishes from the early years of life, and would do so with considerable uniformity but for the effects of immigration.

Table 48.—Deaths from Bright's disease in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	965	40.4	98	78	89	75	83	79	84	70	65	87	81	76
I. Upper Peninsula.....	57	26.2	8	1	6	3	10	7	3	5	1	5	4	4
II. Northern counties....	71	25.8	3	7	7	4	6	5	10	4	10	6	4	5
III. Central counties....	150	32.9	13	13	10	10	15	11	12	15	11	13	13	14
IV. Southern counties....	687	47.8	74	57	60	58	52	56	59	46	43	63	60	53

Deaths by sex, 1899.

Deaths by ages, 1899.*

Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
575	390	10	16	12	28	33	63	73	107	177	220	192	68

* Includes four deaths at unknown ages.

PUERPERAL DISEASES.

Classification.—The Bertillon classification of causes of death gives the following:

116. **Accidents of pregnancy.** *This title includes:* Abortion or miscarriage (death of the mother); hemorrhage during pregnancy; uncontrollable vomiting; rupture of tubal pregnancy.

117. **Puerperal hemorrhage.** *This title includes:* Puerperal metrorrhagia.

118. **Other accidents of childbirth.** *This title includes:* Dystocia; Caesarian section; rupture of the uterus; metrorrhagia; laceration or rupture of the perineum; perineorrhaphy; placenta previa; retention or detachment of the placenta; apoplexy of the placenta; cephalotripsy or embryotomy (adult female); symphysiotomy.

119 A. **Puerperal septicaemia.** *This title includes:* Puerperal fever; puerperal infection.

This title does not include: Septicaemia (without epithet) (14).

119 B. **Puerperal phlebitis.** *This title includes:* Puerperal lymphangitis.

120. **Puerperal metropéritonitis.** *This title includes:* Puerperal peritonitis.

121. **Puerperal albuminuria and eclampsia.** *This title includes:* Puerperal uremia; nephritis of pregnancy; eclampsia gravidarum; epileptiform convulsions of women in pregnancy; puerperal tetanus.

122. **Puerperal phlegmasia alba dolens.**

Frequent complications: Gangrene; embolism.

123. **Other accidents of childbearing—Sudden death.** *This title includes:* Puerperal embolism; puerperal thrombosis; sudden death during the puerperium; death after labor (without other explanation).

This title does not include: Sudden death (non-puerperal) (157); puerperal scarlatina (6).

124. **Puerperal diseases of the breast.** *This title includes:* Fissure of the nipple (puerperal); abscess of the breast (puerperal); fistula of the breast (puerperal or unspecified).

Note.—It sometimes happens that the physician neglects to state the puerperal character of the disease. Hence the following rule is laid down for statistical offices: In every such case in which an adult female is reported as having died of a disease which might be of puerperal character, the certificate of death should be returned to the signer for explanation as to whether the disease was puerperal or not. These diseases are the following: Peritonitis; pelvic peritonitis; metropéritonitis; septicaemia; hemorrhage; metrorrhagia; eclampsia; phlegmasia alba dolens; phlebitis; lymphangitis; embolism; sudden death; abscess of the breast.

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 428 deaths compiled from puerperal diseases in Michigan during the year 1899, corresponding to a death rate of 17.9 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 49, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred during the month of March, namely, 49, and the smallest number, 19, occurred in September.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Upper Peninsula. Stated as death rates per 100,000 population, the greatest mortality from this cause, 21.2, was in the Upper Peninsula, and the least, 17.1, was in the Southern counties.

The largest number of deaths occurred in the age-period, 20-29 years. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon population of corresponding ages, as given in Table 19 for each of the age periods here shown.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 49 with the data given in the corresponding table of the registration report for 1898, it appears that there were 41 more deaths in 1899 than in 1898. The death rate for the State increased from 16.5 per 100,000 population in 1898 to 17.9 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Upper Peninsula, which had a death rate of 25.5 per 100,000 population, as compared with a maximum death rate of 21.2 in the same section in 1899.

Table 49.—Deaths from puerperal diseases in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	428	17.9	35	40	49	42	43	39	39	37	19	31	21	42
I. Upper Peninsula.....	46	21.2	4	5	6	6	3	5	3	4	1	3	.....	6
II. Northern counties....	56	20.4	3	8	7	7	5	4	4	4	1	6	3	4
III. Central counties....	80	17.6	4	4	9	8	12	8	5	7	5	7	4	7
IV. Southern counties....	246	17.1	24	23	27	21	23	22	18	22	12	15	14	25
Deaths by sex, 1899.			Deaths by ages, 1899.											
Males.	Females.		Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
	428		.....	.....	.....	.....	28	190	156	54	.....	.....	.....	.....

DISEASES OF THE SKIN AND CELLULAR TISSUES.

Classification.—The Bertillon classification of causes of death gives the following:

125. Erysipelas. *This title includes:* All erysipelas, either medical or surgical, and whatever its situation; gangrenous or phlegmonous erysipelas.

126. Gangrene. *This title includes:* Mortification; sphacelus; gangrene—dry, senile or of the extremities; gangrene of the mouth; gangrene of the vulva, etc.; noma; Raymond's disease. *This title does not include:* Gangrene of the lungs (75); hernial gangrene (86); gangrenous erysipelas (126).

127. Carbuncle. *This title includes:* Furuncle; Biskra's boil or button.

128. Phlegmon, acute abscess. *This title includes:* Abscess (without epithet); phlegmonous tumor; adeno-phlegmon; suppurative adenitis; bubo (without epithet); suppurating bubo; diffuse phlegmon; paronitis; paronychia; mediastinal abscess; pus cavity (without other indication).

This title does not include: Bacillary abscess (22 D); abscess of the pharynx, throat or retropharyngeal abscess (79 A); abscess of the liver (92); abscess of the iliac fossa (95); pelvic abscess (107); abscess of the prostate (104); urinary abscess (103 B); peritubercular abscess (107); non-puerperal abscess of the breast (115); puerperal abscess of the breast (124); cold abscess (131); symptomatic abscess (131); ossifluent abscess (131); angioleucitis (63).

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 267 deaths compiled from skin diseases in Michigan during the year 1899, corresponding to a death rate of 11.2 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 50, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred during the month of March, namely, 36, and the smallest number, 14, occurred in September.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Upper Peninsula. Stated as death rates per 100,000 population, the greatest mortality

Table 50.—Deaths from skin diseases in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	267	11.2	34	27	36	19	19	17	21	18	14	27	18	17
I. Upper Peninsula.....	11	5.1	2	1	1	.....	.....	1	1	2	.....	1	1	1
II. Northern counties....	24	8.7	1	2	4	3	3	1	1	2	2	2	1	2
III. Central counties....	45	9.9	3	5	6	3	3	.....	3	2	3	10	3	4
IV. Southern counties....	187	13.0	28	19	25	13	13	15	16	12	9	14	13	10
Deaths by sex, 1899.			Deaths by ages, 1899.*											
Males.	Females.		Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
146	121		36	42	1	43	5	14	14	9	18	53	59	59

* Includes two deaths at unknown ages.

from this cause, 13.0, was in the Southern counties, and the least, 5.1, in the Upper Peninsula.

Classified by sex, there were 146 males and 121 females. The largest number of deaths occurred in the age-period, 70-79 years. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the mortality as affected by age, reference should be made to the death rates based upon population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 50 with the data given in the corresponding table of the registration report for 1898, it appears that there were 40 more deaths from this cause in 1899 than in 1898. The death rate for the State increased from 9.7 in 1898 to 11.2 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Central counties, which had a death rate of 10.6 per 100,000 population, as compared with a maximum death rate of 13.0 in the Southern counties in 1899.

DISEASES OF THE LOCOMOTOR SYSTEM.

Classification.—The Bertillon classification of causes of death gives the following:

130. Pott's disease. *This title includes:* Caries of the vertebra; spine disease; vertebral pyarthrititis.

Frequent complications: Cold abscess; paraplegia; visceral tuberculosis.

131. Cold abscess; symptomatic abscess. *This title includes:* Ossifluent abscess.

132. Other diseases of the bones. *This title includes:* Periostitis; osteitis; osteo-periostitis; osteo-mylitis; caries; necrosis; sequestra; perforation of the palatine arch; necrosis of the maxillary bone (not from phosphorus or without indication); exostosis (without epithet); osteoma; bony tumor; tumor of the skull; foreign body in the frontal or other sinuses; mastoiditis; abscess of the frontal sinus, maxillary sinus, etc.; osteomalacia; softening of bones; rachitis; scoliosis; lordosis; kyphosis.

This title does not include: Caries of the petrous portion of the temporal bone (53); dental caries (78); osteoscopic pains (24); osteosarcoma (25 G); necrosis due to phosphorus (36).

133. White swellings. *This title includes:* Articular fungosity; coxalgia; scapulargia.

134 (A.) Arthritis. *This title includes:* Polyarthrititis (not of the vertebra); arthropodosis.

134 (B.) Other diseases of the joints. *This title includes:* Hydrarthrosis; foreign body in joint; arthrodynia; arthropodosis; ankylosis; arthralgia; arthrocoele; genu valgum.

This title does not include: Rheumatismal arthritis (26); arthritis (26).

135. Amputation. *This title includes:* Only cases in which the cause (of the amputation) is not indicated.

This title does not include: Amputation of the breast (115); amputation of the penis (106).

Frequent complications: Septicemia; erysipelas; tetanus; hemorrhage.

136. Other diseases of the organs of locomotion. *This title includes:* Hygroma; perichondritis; disarticulation; tarsalgia; painful clubfoot; retracted digits; Dupuytren's disease; nodular rheumatism; rupture of muscle; muscular diastasis; myodiastasis; rupture of tendon; diseases of tendons; tenophyte; tenosynovitis; tenotomy; tenorrhaphy; torticollis; lumbago.

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 75 deaths compiled from diseases of the locomotor system in Michigan during the year 1899, corresponding to a death rate of 3.1 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 51, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred during the month of August, namely, 10, and the smallest number, 2, occurred in September.

DISEASES OF THE SKIN AND CELLULAR TISSUES.

Classification.—The Bertillon classification of causes of death gives the following:

125. Erysipelas. *This title includes:* All erysipelas, either medical or surgical, and whatever its situation; gangrenous or phlegmonous erysipelas.

126. Gangrene. *This title includes:* Mortification; sphacelus; gangrene—dry, senile or of the extremities; gangrene of the mouth; gangrene of the vulva, etc.; noma; Raymond's disease.

This title does not include: Gangrene of the lungs (75); hernial gangrene (86); gangrenous erysipelas (126).

127. Carbuncle. *This title includes:* Furuncle; Biskra's boil or button.

128. Phlegmon, acute abscess. *This title includes:* Abscess (without epithet); phlegmonous tumor; adeno-phlegmon; suppurative adenitis; bubo (without epithet); suppurating bubo; diffuse phlegmon; panaris; paronychia; mediastinal abscess; pus cavity (without other indication).

This title does not include: Bacillary abscess (22 D); abscess of the pharynx, throat or retropharyngeal abscess (79 A); abscess of the liver (92); abscess of the iliac fossa (95); pelvic abscess (107); abscess of the prostate (104); urinary abscess (103 B); peritubercular abscess (107); non-puerperal abscess of the breast (115); puerperal abscess of the breast (124); cold abscess (131); symptomatic abscess (131); ossifluent abscess (131); angiolencitis (63).

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 267 deaths compiled from skin diseases in Michigan during the year 1899, corresponding to a death rate of 11.2 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 50, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred during the month of March, namely, 36, and the smallest number, 14, occurred in September.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Upper Peninsula. Stated as death rates per 100,000 population, the greatest mortality

Table 50.—Deaths from skin diseases in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	267	11.2	34	27	36	19	19	17	21	18	14	27	18	17
I. Upper Peninsula.....	11	5.1	2	1	1	.....	.....	1	1	2	.....	1	1	1
II. Northern counties....	24	8.7	1	2	4	3	3	1	1	2	2	2	1	2
III. Central counties....	45	9.9	3	5	6	3	3	.....	3	2	3	10	3	4
IV. Southern counties....	187	13.0	28	19	25	13	13	15	16	12	9	14	13	10
Deaths by sex, 1899.			Deaths by ages, 1899.*											
Males.	Females.		Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
146	121		36	42	1	43	5	14	14	9	18	53	59	59

* Includes two deaths at unknown ages.

MALFORMATIONS.

Classification.—The Bertillon classification of causes of death gives the following:

137. Malformations. *This title includes:* Malformations; monstrosity; anomaly; arrested development; hydrocephalus; megalcephalus; hydrorhachis; spina bifida; anencephalus; encephalocele; podencephalus; congenital eversion; omphalocele; exomphalus; ectopia; imperforate anus, etc.; harelip; anaspadias; hypospadias; cryptorchidism; vascular nevos; polydactylism; syndactylism; clubfoot; talipes varus, valgus or equinus.

This title does not include: Persistent foramen ovale (57); coloboma (53); painful club-foot (135).

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 170 deaths compiled from malformations in Michigan during the year 1899, corresponding to a death rate of 7.1 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 52, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred during the month of March, namely, 20, and the smallest number, 9, occurred in each of the months January and September.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Upper Peninsula. Stated as death rates per 100,000 population, the greatest mortality from this cause, 7.8, was in the Upper Peninsula, and the least, 4.6, in the Central counties.

Classified by sex, there were 84 males and 86 females. The largest number of deaths occurred under the age of five years. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality

Table 52.—Deaths from malformations in Michigan, 1899.

[illegible]

as affected by age, reference should be made to the death rates based upon population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 52 with the data given in the corresponding table of the registration report for 1898, it appears that there were 30 more deaths in 1899 from this cause than in 1898. The death rate for the State increased from 6.0 in 1898 to 7.1 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Northern counties, which had a death rate of 7.5 per 100,000 population, as compared with a maximum death rate of 7.8 in the Upper Peninsula in 1899,

DISEASES OF INFANCY.

Classification.—The Bertillon classification of causes of death gives the following:

138. Congenital debility, icterus and sclerema. *This title includes:* Premature birth; atrophy (infantile); icterus or hepatitis of the newly-born; atelectasis of the newly-born; edema of the newly-born.

139. Want of care.

140. Other diseases peculiar to infancy. *This title includes:* Umbilical hemorrhage.

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 1,396 deaths compiled in Michigan from diseases of infancy during the year 1899, corresponding to a death rate of 58.5 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 53, together with the age and sex distribution.

Table 53.—Deaths from diseases of infancy in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	1,396	58.5	119	132	135	105	130	82	111	136	138	99	102	107
I. Upper Peninsula.....	210	96.6	23	21	17	17	21	10	18	19	14	12	22	16
II. Northern counties....	153	55.6	7	15	12	12	13	10	11	16	20	17	7	13
III. Central counties....	212	46.6	13	19	28	25	16	10	12	22	26	13	14	14
IV. Southern counties....	821	57.1	76	77	78	51	80	52	70	79	78	57	59	64
Deaths by sex, 1899.*			Deaths by ages, 1899.											
Males.	Females.		Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
782	611		1,359	1,305	1	1,396	.....	.....	.....	.....	.....	.....	.....	.....

* Includes three deaths of sex unknown.

For the State as a whole, the largest number of deaths from this cause occurred during the month of September, namely, 138, and the smallest number, 82, occurred in June.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Northern counties. Stated as death rates per 100,000 population, the greatest mortality from this cause, 96.6, was in the Upper Peninsula, and the least, 46.6, in the Central counties.

Classified by sex there were 782 males and 611 females. The largest number of deaths occurred under the age of five years. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 53 with the data given in the corresponding table of the registration report for 1898, it appears that there were 226 more deaths in 1899 from this cause than in 1898. The death rate for the State increased from 49.8 in 1898 to 58.5 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Upper Peninsula, which had a death rate of 88.9 per 100,000 population, as compared with a maximum death rate of 96.6 in the same section in 1899.

DISEASES OF OLD AGE.

Classification.—The Bertillon classification of causes of death gives the following:

141. Senile debility. *This title includes:* Senility; old age; cachexia (of the aged); senile exhaustion; senile dementia.

This title does not include: Senile gangrene (126).

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 676 deaths compiled from old age in Michigan during the year 1899, corresponding to a death rate of 28.3 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 54, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred in the month of February, namely, 91, and the smallest number, 36, occurred in June.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Upper Peninsula. Stated as death rates per 100,000 population, the greatest mortality from this cause, 31.7, was in the Southern counties, and the least, 11.0, in the Upper Peninsula.

Classified by sex, there were 311 males and 365 females. The largest number of deaths occurred in the age-period, 80 years and over. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative

mortality as affected by age, reference should be made to the death rates based upon the population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 54 with the data given in the corresponding table of the registration report for 1898, it appears that there were 18 more deaths in 1899 from this cause than in 1898. The death rate for the State increased from 28.0 in 1898 to 28.3 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Southern counties, which had a death rate of 30.4 per 100,000 population, as compared with a maximum death rate of 31.7 in the same section in 1899.

Table 54.—Deaths from old age in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	676	28.3	68	91	63	56	49	36	42	51	54	65	56	45
I. Upper Peninsula.....	24	11.0	2	3	1	1	3	1	5	2	1	1	1	3
II. Northern counties....	75	27.3	8	7	7	8	6	.....	5	8	7	4	7	8
III. Central counties....	121	26.6	9	23	10	9	11	6	7	11	7	9	10	9
IV. Southern counties....	456	31.7	49	58	45	38	29	29	25	30	39	51	38	25
Deaths by sex, 1899.			Deaths by ages, 1899.*											
Males.	Females		Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
311	365		.....	.....	.....	.....	.....	.....	.....	1	2	24	178	469

* Includes two deaths at unknown ages.

SUICIDE.

Classification.—The Bertillon classification of causes of death gives the following:

142 A. Suicide by poison. *This title includes:* Voluntary poisoning.

This title does not include: Morphinism (37); cocainism (37); wilful taking of sulphuric acid or any other corrosive acid (142 I).

142 B. Suicide by asphyxia. *This title includes:* Suicide by vapor of charcoal.

142 C. Suicide by strangulation. *This title includes:* Hanging.

142 D. Suicide by drowning.

142 E. Suicide by firearms.

142 F. Suicide by cutting instruments.

142 G. Suicide by precipitation from a height.

142 H. Suicide by crushing.

142 I. Other suicides. *This title includes:* Wilful taking of sulphuric acid or of any other very corrosive substance.

Note.—Among suicides should be classed only cases which are definitely stated as such, or which result from suicidal attempts.

External or internal lesions caused by sulphuric acid or other corrosive substances are not classed under poisoning but under burns.

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 189 deaths compiled from suicide in Michigan during the year 1899, corresponding to a death rate of 7.9 per 100,000 estimated reporting population. The distribution of

For the State as a whole, the largest number of deaths from this cause occurred during the month of September, namely, 138, and the smallest number, 82, occurred in June.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Northern counties. Stated as death rates per 100,000 population, the greatest mortality from this cause, 96.6, was in the Upper Peninsula, and the least, 46.6, in the Central counties.

Classified by sex there were 782 males and 611 females. The largest number of deaths occurred under the age of five years. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 53 with the data given in the corresponding table of the registration report for 1898, it appears that there were 226 more deaths in 1899 from this cause than in 1898. The death rate for the State increased from 49.8 in 1898 to 58.5 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Upper Peninsula, which had a death rate of 88.9 per 100,000 population, as compared with a maximum death rate of 96.6 in the same section in 1899.

DISEASES OF OLD AGE.

Classification.—The Bertillon classification of causes of death gives the following:

141. Senile debility. *This title includes:* Senility; old age; cachexia (of the aged); senile exhaustion; senile dementia.

This title does not include: Senile gangrene (126).

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 676 deaths compiled from old age in Michigan during the year 1899, corresponding to a death rate of 28.3 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 54, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred in the month of February, namely, 91, and the smallest number, 36, occurred in June.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Upper Peninsula. Stated as death rates per 100,000 population, the greatest mortality from this cause, 31.7, was in the Southern counties, and the least, 11.0, in the Upper Peninsula.

Classified by sex, there were 311 males and 365 females. The largest number of deaths occurred in the age-period, 80 years and over. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative

mortality as affected by age, reference should be made to the death rates based upon the population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 54 with the data given in the corresponding table of the registration report for 1898, it appears that there were 18 more deaths in 1899 from this cause than in 1898. The death rate for the State increased from 28.0 in 1898 to 28.3 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Southern counties, which had a death rate of 30.4 per 100,000 population, as compared with a maximum death rate of 31.7 in the same section in 1899.

Table 54.—Deaths from old age in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	676	28.3	68	91	63	56	49	36	42	51	54	65	56	45
I. Upper Peninsula.....	24	11.0	2	3	1	1	3	1	5	2	1	1	1	3
II. Northern counties....	75	27.3	8	7	7	8	6	.....	5	8	7	4	7	8
III. Central counties....	121	26.6	9	23	10	9	11	6	7	11	7	9	10	9
IV. Southern counties....	456	31.7	49	58	45	38	29	29	25	30	39	51	38	25
Deaths by sex, 1899.			Deaths by ages, 1899.*											
Males.	Females.		Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
311	365		.....	.....	.....	.....	.....	.....	.....	1	2	24	178	469

* Includes two deaths at unknown ages.

SUICIDE.

Classification.—The Bertillon classification of causes of death gives the following:

- 142 A. **Suicide by poison.** *This title includes:* Voluntary poisoning.
This title does not include: Morphinism (37); cocaineism (37); wilful taking of sulphuric acid or any other corrosive acid (142 I).
 142 B. **Suicide by asphyxia.** *This title includes:* Suicide by vapor of charcoal.
 142 C. **Suicide by strangulation.** *This title includes:* Hanging.
 142 D. **Suicide by drowning.**
 142 E. **Suicide by firearms.**
 142 F. **Suicide by cutting instruments.**
 142 G. **Suicide by precipitation from a height.**
 142 H. **Suicide by crushing.**
 142 I. **Other suicides.** *This title includes:* Wilful taking of sulphuric acid or of any other very corrosive substance.

Note.—Among suicides should be classed only cases which are definitely stated as such, or which result from suicidal attempts.

External or internal lesions caused by sulphuric acid or other corrosive substances are not classed under poisoning but under burns.

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 189 deaths compiled from suicide in Michigan during the year 1899, corresponding to a death rate of 7.9 per 100,000 estimated reporting population. The distribution of

these deaths by months is shown for the State and geographical sections in Table 55, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred during the month of July, namely, 22, and the smallest number, 9, occurred in the month of February.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Upper Peninsula. Stated as death rates per 100,000 population, the greatest mortality from this cause, 8.8, was in the Southern counties, and the least, 5.7, in the Central counties.

Classified by sex, there were 143 males and 46 females. The largest number of deaths occurred in the age-period, 40-49 years. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 55 with the data given in the corresponding table of the registration report for 1898, it appears that there were exactly the same number of deaths in 1898 and 1899. The death rate for the State decreased from 8.0 in 1898 to 7.9 in 1899. The mortality, by geographical sections, from this cause for both of the years 1898 and 1899 was in the Southern counties, which had a death rate of 8.8 per 100,000 population.

Table 55.—Deaths from suicide in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	189	7.9	18	9	11	17	19	18	22	17	12	17	16	13
I. Upper Peninsula.....	17	7.8	3	.....	.....	5	2	.....	1	1	3	.....	.....	2
II. Northern counties....	19	6.9	1	1	1	1	3	2	3	2	.....	1	2	2
III. Central counties....	26	5.7	3	2	.....	1	.....	4	8	.....	1	4	.....	3
IV. Southern counties....	127	8.8	11	6	10	10	14	12	10	14	8	12	14	6
Deaths by sex, 1899.			Deaths by ages, 1899.*											
Males.	Females.		Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
143	46		.....	.....	.....	.....	7	27	34	44	29	24	15	7

* Includes two deaths at unknown ages.

ACCIDENTS.

Classification.—The Bertillon classification of causes of death gives the following:

143. Fractures.
144. Dislocations. *This title includes:* Luxation; subluxation.
145. Accidental injury. *This title includes:* Contusion; bite (not venomous or virulent); crushing; railroad accident (suicides excepted); injury by cutting instrument (without evidence of suicide); accidental fall; concussion of the brain; perforation of the skull; traumatic hemorrhage; traumatic fever; traumatic eventration; perforation of the abdomen or chest; every acute affection qualified as "traumatic;" wounds by firearms.
- 146 A. Burning by fire. *This title does not include:* Conflagration.
- 146 B. Burning by corrosive substances. *This title includes:* Burning by vitriol; accidental taking of sulphuric acid.
147. Sunstroke and freezing.
- This title does not include:* Cold (newly-born) (139).
148. Accidental drowning. *This title includes:* Drowning without evidence of suicide.
149. Inanition. *This title includes:* Hunger; insufficient food (not including newly-born); want.
- This title does not include:* Want of care (newly-born) (139); insufficient nourishment (newly-born) (139); sitophobia (46); hysteric anorexia (52 A).
150. Inhalation of noxious gases (not suicidal). *This title includes:* Accidental asphyxia (excluding pathological asphyxia and suicidal asphyxia); asphyxia by illuminating gas; asphyxia by stove (fixed or movable); oxide of carbon; conflagration; ammonium sulphhydrate; night-soil collectors' lead fumes; chloroform; nitrogen protoxide.
- This title does not include:* Asphyxia (without other indication) (156).
151. Other accidental poisoning. *This title includes:* Poisoning—criminal, accidental or by cause unknown; antimonial cholera; acute ergotism; absorption of venom; snake-bite.
- This title does not include:* Accidental taking of sulphuric acid or other corrosive substances (146 B); chronic lead poisoning (36); mercurial poisoning (36 or 37, as the case requires); morphinism, chronic ergotism, etc. (37).
152. Other external violence. *This title includes:* Accident (without other explanation); murder; homicide; assassination (without other explanation); ill-treatment (of an infant); execution; lightning; electricity; foreign body in the larynx; foreign body in the trachea.

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 1,579 deaths compiled from accidents in Michigan during the year 1899, corresponding to a death rate of 66.2 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 56, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred during the month of August, namely, 176, and the smallest number, 103, occurred in each of the months February and March.

Considered by geographical sections, the largest number of deaths from this cause was in the Southern counties, and the smallest number in the Northern counties. Stated as death rates per 100,000 population, the greatest mortality from this cause, 115.0, was in the Upper Peninsula, and the least, 56.3, in the Southern counties.

Classified by sex, there were 1,248 males and 331 females. The largest number of deaths occurred in the age-period, 20-29 years. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 56 with the data given in the corresponding table of the registration report for 1898, it appears that there were 124 more deaths from this cause in 1899 than in 1898. The death rate for the State increased from 61.9 in 1898 to 66.2 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Upper Penin-

sula, which had a death rate of 109.7 per 100,000 population, as compared with a maximum death rate of 115.0 in the same section in 1899.

In Diagram I (*frontispiece*) a graphic comparison is made of the deaths returned from this cause during the two years 1898 and 1899, distinguishing the months of death and ages of decedents. The returns for 1898 are shown by the blue lines and those for 1899 are printed over in brown on the same scale. The number of deaths for each month and age-period, not the death rate, is indicated. A slight correction would be necessary in an exact comparison for the various lengths of the months, and the same number of deaths in each of two age-periods might correspond to very different rates of mortality, the latter depending upon the distribution of the population by ages. In general, with an equal number of deaths reported for successive decennial periods of age, the death rates would show an increase, since the population at each age-period usually diminishes from the early years of life, and would do so with considerable uniformity but for the effects of immigration.

Table 56.—Deaths from accidents in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	1,579	66.2	110	103	103	123	121	148	169	176	160	120	124	122
I. Upper Peninsula.....	250	115.0	17	14	16	10	19	24	29	28	32	17	23	21
II. Northern counties....	232	84.4	21	13	19	15	24	15	30	25	24	16	17	13
III. Central counties....	288	63.2	15	24	17	23	19	31	30	40	21	25	17	26
IV. Southern counties....	809	56.3	57	52	51	75	59	78	80	83	83	62	67	62
Deaths by sex, 1899.			Deaths by ages, 1899.*											
Males.	Females.		Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
1,248	331		65	210	87	297	220	244	199	166	125	122	108	76

* Includes twenty-two deaths at unknown ages.

HOMICIDE.

Classification.—The Bertillon classification of causes of death does not give a separate title to deaths of this class, but includes them under 152, Other external violence. For the reasons given under the preceding title, a separate division is made in this report, and this head includes all deaths caused by injuries received at the hands of other persons. It is possible in some cases that the nature of the injury may be specified without giving the fact that the death was caused by the action of another person, in which case the compilation would be made under deaths from accident.

Occurrence in Michigan, 1899.—There were 28 deaths compiled from homicide in Michigan, corresponding to a death rate of 1.2 per 100,000 population. The distribution of these deaths by sex, age, and geographical sections in Table 57.

For the State as a whole, the largest number of deaths from this cause occurred during the months of May and October, namely, 6, and the smallest number, 1, occurred in the months of February, March, April, June and November, while in January there were no deaths.

Considered by geographical sections, the largest number of deaths was in the Southern counties, while the Upper Peninsula and Northern counties each had the same number. Stated as death rates per 100,000 population the greatest mortality from this cause, 1.3, was in the Southern counties, and the least, 0.7, in the Northern counties.

Classified by sex, there were 14 males and 14 females. The largest number of deaths occurred in the age-period, 20-29 years. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon the population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Table 57.—Deaths from homicide in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	28	1.2	.....	1	1	1	6	1	2	3	4	6	1	2
I. Upper Peninsula.....	2	0.9 ^b	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1
II. Northern counties....	2	0.7	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....
III. Central counties....	5	1.1	.....	.....	.....	.....	3	.....	1	.....	.....	1	.....	.....
IV. Southern counties....	19	1.3	.....	.....	1	1	3	1	1	3	4	3	1	1
Deaths by sex, 1899.		Deaths by ages, 1899.												
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.	
14	14	1	4	.....	4	4	6	5	3	4	.....	2	.....	

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 57 with the data given in the corresponding table of the registration report for 1898, it appears that there were 5 less deaths from this cause in 1899 than in 1898. The death rate for the State decreased from 1.4 in 1898 to 1.2 in 1899. The highest mortality, by geographical sections, from this cause in 1898 was in the Northern counties, which had a death rate of 1.9 per 100,000 population, as compared with a maximum death rate of 1.3 in the Southern counties in 1899.

CAUSES ILL-DEFINED.

Classification.—The Bertillon classification of causes of death gives the following:

133. Exhaustion and cachexia. *This title includes:* Debility (adults); asthenia; adynamia; anaxo-adynamia; asthenic, hectic, colliquative or synochal fever.

This title does not include: Congenital debility (139); exhaustion, cachexia or debility of the aged (141); anaxo-adynamic fever (1).

134. Inflammatory fever. *This title includes:* Algid fever; carphologia; fever of dentition; autumnal, gastric, bilious, or catarrhal fever.

This title does not include: Continued fever (1); hay fever (76).

135. Dropsy. *This title includes:* Anasarca; ascites; edema of the extremities and general edema; organic disease (not defined).

This title does not include: Edema of the newly-born (139); edema of the glottis (68); edema of the lungs (77 B); edema of the brain (42).

136. Asphyxia, cyanosis. *This title includes:* Dyspnea.

This title does not include: Asphyxia from external cause (suicide, 142 B); asphyxia from inhalation of noxious gases (180); cyanosis from persistent foramen ovale or malformation of the great vessels (87).

137. Sudden death. *This title includes:* Syncope (preceding death).

This title does not include: Sudden death during puerperium (123), unless the "sudden death" is accompanied by an explanatory remark, e. g., "sudden death due to diabetes" (24), or "sudden death from apoplexy" (42), etc.

138. Abdominal tumor. *This title includes:* Intestinal tumor; laparotomy.

This title does not include: Tumor of the stomach (25 B); tumor of the uterus (111); hydatid tumor (80); ovarian cyst (113).

139. Other tumors. *This title includes:* All tumors (except cancer and its synonyms) of which the location is not indicated by the physician; vascular tumor; cystotomy; lipoma; wen; sebaceous tumor.

This title does not include: Fecal tumor (86).

140. "Plate." *This title includes:* Surgical shock.

141. Unknown diseases. *This title includes:* All of the returns of causes of death of too vague a character to permit them to be classed under any of the preceding titles: Coma; collapse; cough; delirium; suppuration; transfusion of blood; trepanning; tympanites; abdominal tympanites; polydipsia; polyuria; pollakiuria, etc., etc.

The reference numbers refer to the complete classification as printed in the Appendix of the last report, and also as practically applied to the statistics of Michigan for the year 1899 in Table III, p. 20, Table IV, p. 40, and Table VII (cities) p. 78. The revised International Classification (Paris, 1900) will not go into use until the report for 1901.

Occurrence in Michigan, 1899.—There were 1,580 deaths compiled in Michigan from ill-defined causes during the year 1899, corresponding to a death rate of 66.2 per 100,000 estimated reporting population. The distribution of these deaths by months is shown for the State and geographical sections in Table 58, together with the age and sex distribution.

For the State as a whole, the largest number of deaths from this cause occurred during the month of February, namely, 187, and the smallest number, 90, occurred during October.

Considered by geographical sections, the largest number of deaths was in the Southern counties, and the smallest number in the Upper Peninsula. Stated as death rates per 100,000 population, the greatest mortality from this cause, 89.1, was in the Northern counties, and the least, 59.7, in the Southern counties.

Classified by sex, there were 793 males and 786 females. The largest number of deaths occurred in the age-period, 80 years and over. In comparing the deaths at various age-periods, it should be remembered that the age distribution of the population helps to determine the number of decedents at each age. In order to obtain a correct idea of the relative mortality as affected by age, reference should be made to the death rates based upon population of corresponding ages, as given in Table 19 for each of the age-periods here shown.

Comparison of 1899 and 1898.—Comparing the statistics of mortality found in Table 58 with the data given in the corresponding table of the registration report for 1898, it appears that there were 233 more deaths from this cause in 1899 than in 1898. The death rate for the State increased from 57.3 in 1898 to 66.2 in 1899. The highest mortality, by

geographical sections, from this cause in 1898 was in the Northern counties, which had a death rate of 82.0 per 100,000 population, as compared with a maximum death rate of 89.1 in the same section for 1899.

Table 58.—Deaths from ill-defined causes in Michigan, 1899.

Geographical sections.	Total deaths, 1899.	Death rate per 100,000 population.	Deaths by months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	1,580	66.2	162	187	143	168	132	113	127	103	113	90	112	130
I. Upper Peninsula.....	182	83.8	26	18	13	19	10	10	15	23	16	10	14	8
II. Northern counties....	245	89.1	27	34	20	31	28	12	25	14	15	9	16	14
III. Central counties....	294	64.6	25	33	33	27	27	34	25	23	25	12	9	21
IV. Southern counties....	859	59.7	84	102	77	91	67	57	62	43	57	59	73	87

Deaths by sex, 1899.†		Deaths by ages, 1899.*											
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
793	786	332	371	13	384	17	40	42	73	88	192	315	421

* Includes eight deaths at unknown ages.

† Includes one death with unknown sex.

PART III.—MARRIAGES IN MICHIGAN DURING THE YEAR 1899.

There were 21,877 marriages returned to the State Department as having occurred in Michigan during the year 1899. This number exceeds that registered for the preceding year by 1,739, and corresponds to a rate of 18.0 persons married per 1,000 estimated population. These figures may be compared in Table 2, page xxi, with the corresponding figures for previous years of registration, from which it appears that the number of marriages for the year was the largest ever recorded in the State, and also that the marriage rate was higher than any rate since the year 1892, which was 18.6 per 1,000.

Unfortunately, however, for those who desire to utilize the marriage statistics of Michigan as a guide to a knowledge of the changes in the social conditions of the State and as a basis for studies relating to the movement of population, the marriages returned to the State Department as having occurred in Michigan no longer relate exclusively to the marriages of citizens of the State, as a large element of foreign marriages was introduced in the statistics beginning with the year 1899. This may be seen in Table 8, page xxxii, where it appears that the number of marriages in Berrien county for the year 1899 was 1,077, an increase of 633 over the number, 444, recorded for the year 1898. This increase in the marriages of the county was due to the development of the famous "St. Joseph marriage industry," which, by advertising methods and the aid of Sunday excursions from Chicago, succeeded in bringing large numbers of persons from Chicago, other parts of Illinois and Indiana to Michigan for the purpose of being married. This business increased also in the following year, 1900, in even a larger degree, so that the number of marriages performed each year in Michigan cannot be taken any longer as relating exclusively to the vital statistics of this State, but must be largely corrected, if it were possible to do so in a satisfactory manner, for the introduction of this foreign material, before any inferences can be drawn on this subject.

PROPOSED AMENDMENTS TO THE MARRIAGE LAW.

It is not the purpose of this Department to criticise this traffic in marriages at the present time. In the report for 1898, which first called attention to the subject, it was assumed, in view of the general condemnation of this business by the press, the clergy and other reputable citizens of the State, that it might be desirable that some measures be taken to limit this apparent prostitution of Michigan, which were designed for the protection of the citizens of the State in throwing around them the permanent restrictions and sanctions of those legal sanctions and the permanent rec-

ord of the marriages performed, and to provide for the valuable statistics pertaining to the vital movement of the State resulting therefrom. At the last session of the legislature, however, the people of the State of Michigan, acting through their accredited representatives, investigated this subject and came to the apparent conclusion, as shown by action on proposed legislation affecting this class of marriages, that they were, on the whole, a desirable sort of thing, and that it was not advisable to attempt to limit or restrict them in any way to the jeopardy of the important business interests of the local communities which would suffer by the destruction of the flourishing industry which had been so enterprisingly created. If this use of the marriage laws, therefore, is agreeable to the people of the State in general, it is not necessary for this Department to add any further criticism, even though such use may result, as should be thoroughly understood, in making worthless the marriage statistics of this and future years for the important purposes for which such statistics have been employed.

At the time that the bill for the regulation of marriages was introduced in the legislature of 1901, this Department thought it advisable to suggest certain other amendments, not in any way relating to the restriction of foreign marriages, but which seemed desirable in the way of promoting greater effectiveness in the present law, and in removing some sources of tardiness and imperfect returns. These amendments, together with the legislation proposed by those who desired to limit the special class of excursion marriages, may be seen in brackets in the following text of the bill (Senate Bill 210, File No. 65) which was introduced by Senator Humphrey on February 15, 1901, and referred to the committee on judiciary. The bill was subsequently killed by a vote of 15 to 12 in the Senate.

A BILL to amend sections one, three, four and ten of act No. 128 of the Public Acts of 1887, entitled "An act for the requiring of a civil license in order to marry, and the due registration of the same, and to provide a penalty for the violation of the provisions of the same," approved May 31, 1887, the same being compiler's section 8602 of the Compiled Laws of 1897.

The People of the State of Michigan enact: SECTION 1. That sections one, three, four and ten of act No. 128 of the Public Acts of 1887, entitled "An act for the requiring of a civil license in order to marry, and the due registration of the same, and to provide a penalty for the violation of the provisions of the same," the same being compiler's section 8602 of the Compiled Laws of 1897, be and the same is hereby amended so as to read as follows:

SECTION 1. It shall be necessary for all parties intending to marry to obtain a marriage license from the county clerk of the county in which either the man or woman resides, and to deliver the same to the clergyman or magistrate who is to officiate before the marriage can be performed. If both parties are non-residents of the State it shall be necessary to obtain such license from the county clerk of the county in which such marriage is to be performed. (a) [No marriage license shall be issued on the first day of the week, commonly called Sunday; and all marriage licenses shall bear date as of the day on which they shall be actually issued.]

SEC. 3. It shall be the duty of the county clerk, on application being made to him, to fill out the blank spaces of the license according to the sworn answers of the applicant, taken before him or some person duly authorized by law to administer oaths. Whenever it shall appear from said affidavit that the said applicant applies for a license for the marriage of a female (b) [over sixteen years of age, but] who has not attained the age of eighteen years, then it shall be the duty of said county clerk to require that there shall first be produced the written consent of one of the parents

of said female, or of her legal guardian, to the marriage of said female, and to the issuing of the license for which application is made, unless said female have no parent or guardian living. (c) [Such consent shall be executed by the parent or guardian, as the case may be, in the presence of two witnesses, who shall subscribe their names thereto as such, and shall be acknowledged before the county clerk issuing the license or before the same officers as is provided by law for the acknowledgment of deeds before the same are entitled to record in this State.] No license shall be issued by said county clerk in such cases until the said requirements are complied with. Such written consent shall be preserved on file in the office of said county clerk, (d) [and a note of the same entered on his marriage record and on his return to the Secretary of State.] If it shall appear that the parties are legally entitled to be married, the county clerk shall sign the license in certification of the fact that it is properly issued, (e) [and he shall forthwith make an exact copy of the same in the books of registration, numbering the license at once in the order of its issue. Each year he shall begin a new series of registered numbers, assigning No. 1 to the first license issued during the year, and shall number each license issued consecutively, without fractional numbers and without omitting any license issued from the record.] For his services connected therewith he shall be entitled to a fee of fifty cents, to be paid by the party applying, and at the time of the issuing of the license, (f) [which fee shall cover the entire cost of obtaining a license, including the affidavit, if the latter is drafted by the county clerk.] He shall give the license thus filled out and signed by him, together with the blank form of certificate, to the party applying, for delivery to the clergyman or magistrate who is to officiate at the marriage. On the return of the license to the county clerk as hereinafter provided, with the certificate of the clergyman or magistrate that the marriage has been performed, he shall record in the book of registration in their proper places of entry the date and place of the marriage, the names and residences of two witnesses to the marriage and the name of the officiating clergyman or magistrate. All licenses and certificates so issued and returned shall be preserved on file in the office of the county clerk, (g) [and he shall promptly on the fifteenth day of the months of January, April, July and October, report to the Secretary of State all licenses and certificates issued and received by him during the preceding quarter, together with all delinquent returns for preceding months which may have been filed.]

SEC. 4. It shall be the duty of the clergyman or magistrate officiating at a marriage to fill out the spaces of the certificates left blank for the entry of the time and place of the marriage, the names and residences of two witnesses, and his own signature in certification that the marriage has been performed by him. He shall separate the duplicate license and certificate and retain one-half for his own record, and he shall return the other half within ten days to the county clerk issuing the same. (h) [The county clerk shall endeavor to secure a prompt return of all marriages performed, and shall be aided by the Secretary of State and the prosecuting attorney, whose duty it shall be, on request of either the county clerk or of the Secretary of State, to promptly investigate any cases of negligence in returning marriages by persons performing the ceremony, and to prosecute the same and recover the penalty required by this act.]

SEC. 10. The record of any license to marry or of any marriage certificate in any county clerk's office, or a certified copy thereof, shall be prima facie evidence in any court or proceedings in this State, with the same force and effect as if the original were produced, both as to the facts therein contained and as to the genuineness of the signatures thereto. (i) [The record of marriages in the office of the county clerk shall be accessible to any citizen of this State for examination, on request, at any time during legal office hours, and subject to such necessary rules as may be required for the proper preservation and safeguarding of the records. No clerk shall suppress or omit any marriage licenses issued from his record, nor fail to immediately record the same upon issue as provided in section three of this act.]

Referring to the bracketed amendments in the several sections in order, as marked by reference letters, we have the following notes:

(a) This amendment is from the Committee of the Ministerial Association and provides for a special class of foreign marriages. The Department took no action on it, but its expediency, further

which licenses are issued. This should, of course, correspond to the actual facts in the case.

Passing from the first amendment, which was sought to be introduced in the marriage law for a special purpose, we come to the other amendments, most of which were suggested by the State Department as a result of experience gained in the practical administration of the present law, and which were proposed to the committee having charge of the movement for an amendment to the marriage law, with the view that whether their desired amendment, as shown in section one, should be approved by the legislature or not, that it might be desirable that the other amendments, which affect solely the administration of the present law, might be adopted. It was left entirely a question of general expediency as to whether these amendments should be incorporated in the special bill or form a separate bill. It should be understood that there is no organic connection whatever between the first amendment and any of the following amendments suggested.

(b) This amendment was intended to remove a slight lack of clearness in the present law. It sometimes happens that county clerks and others understand that, with the consent of parent or guardian, a license may be issued for *any* female under 18 years of age, whereas, under the general law of the State, even with the consent of the parent or guardian, a license cannot be issued by the county clerk, unless the female is over 16 years of age. By clearly expressing this in the law, a misconception, which has sometimes led to violations of the law, would be done away with.

(c) This proposed amendment, although not originally suggested by the State Department, would seem to be reasonable and desirable in placing the consent of the parent or guardian in as satisfactory legal condition for record as any other part of the marriage license.

(d) This is supplementary to (c) and simply provides for the proper return of the consent of parent or guardian for marriages of females under 18 years of age.

(e) This amendment provides for the immediate record, and the use of a series of registered numbers for licenses issued, in consecutive order and without fractional numbers or omissions. This proposed amendment is regarded as a very important one from the standpoint of a practical administration of the law. In certain counties there are irregularities in the matter of recording marriages. Licenses are suppressed and other licenses having been issued in regular order, it is necessary to enter the license on a following page, or, perhaps, insert it with a fractional number.

Also in certain counties it has been the custom not to record licenses upon which returns had not been made, so that no clue could be obtained from the county clerk's returns as to the actual number of licenses issued. This being the case, it was impossible to make any inquiry as to marriages that had not been returned, and the result is undoubtedly that a certain proportion fail to be recorded in the office of the Secretary of State. There is no reason why each license should not be immediately recorded as issued, a serial number given, and the returns thus kept in consecutive order, so that certain knowledge can be obtained as to the condition of the records.

(f) This amendment was proposed for the consideration of the legislature and the people of the State. It was undoubtedly contemplated in the passage of the marriage license law in 1887 that the fee of fifty cents to the county clerk should include all expenses relating to the issue of a marriage license. This is the practice at present in some counties, but in others the fee is increased by the addition of a special fee to the clerk for filling out the affidavit for license to marry, and in some cases the total expense of obtaining a marriage license is one dollar or more. It was never contemplated, presumably, that the State should impose a tax upon marriages, except the slight fee necessary for placing them upon permanent record, which is for the benefit of the persons married as well as for the use of the State. A definite fee would be desirable which should be as low as the service warrants, and which should not be subject to increase or differential charges in various parts of the State. In some cases clerks regularly charge one dollar for the issuing of a marriage license, even though the affidavit has been previously made out and sworn to before a notary public, so that the additional charge cannot in any way be construed as due to their notarial services.

(g) This amendment is very important in order to secure prompt returns from the counties of the State. According to the present law these returns are to be made quarterly, but the law fails to specify the exact date at which they should be sent in, so that, as a matter of fact, they come in any time within a few days after the close of each quarter, to even one, two or three months later, according to the greater or less efficiency of the county clerks. By providing a definite date, the Secretary of State would be enabled to insure a much more satisfactory degree of promptness than at present exists.

(h) At present the great defect of the marriage license law, satisfactory as it is in its general operation, is the fact that no officer is especially charged with the duty of enforcing its provisions, and a law will not, as a rule, enforce itself. For this reason it is suggested that the specific duty be laid upon county clerks of endeavoring to secure prompt returns of marriages, and that the county clerks should be aided in this respect by the prosecuting attorney, when necessary, and by the Secretary of State, who will thus be enabled to exercise a more thorough supervision over the return of marriages and to secure the uniform enforcement of the law throughout the State.

At present, as shown by the following statistical summary of a special report made to the State Department by county clerks in the State, it appears that many clergymen and justices of the peace fail to make prompt returns of marriages performed by them, as required by law. There can be no reason or excuse why any clergyman or justice of the peace who performs a marriage ceremony should not be able to return the license to the county clerk within ten days after the ceremony, as the law provides, and if any clergyman or justice of the peace violates this provision there should be effective chinery in the law to insure his prompt prosecution and fine. for this cause since the law following statement, there and some marriages find the almost criminal neglect ceremonies and mak

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Table 59.—Information received from a special report to the Secretary of State made by the clerk of each county in Michigan as to the neglect of clergymen and justices of the peace to make returns of marriages as required by law.

County.	Do any clergymen or justices of the peace fail to return marriages performed by them?	Do any fail to make returns within ten days as required by law?
Alcona.....	No.....	No.....
Alger.....	No.....	No.....
Allegan.....	No.....	I think the law is complied with.
Alpena.....	There were four failures to make returns during past year.....	Occasionally.
Antrim.....	Not when marriage was performed.....	Not when ceremony was performed.
Arenac.....	Yes.....	Yes.
Baraga.....	No.....	Sometimes not often.
Barry.....	Don't know.....	Don't know.
Bay.....	No.....	Occasionally.
Benzie.....	No.....	No.
Berrien.....	No.....	No.
Branch.....	Not recently.....	Sometimes. I call attention to the fact at once.
Calhoun.....	No.....	Yes.
Cass.....	No.....	Yes; sometimes.
Charlevoix.....	No.....	No.
Cheboygan.....	Don't know.....	Yes.
Chippewa.....	Four not returned; reasons unknown.....	Occasionally.
Clare.....	No.....	No.
Clinton.....	No.....	No.
Crawford.....	No.....	Yes.
Delta.....	No.....	No.
Dickinson.....	Very rarely.....	Sometimes.
Eaton.....	No.....	A few.
Emmet.....	No.....	I think not.
Genesee.....	No.....	No.
Gladwin.....	Think priest.....	Not lately.
Gogebic.....	Yes.....	Frequently.
Grand Traverse.....	No.....	No.
Gratiot.....	No.....	Yes.
Hillsdale.....	No.....	Occasionally one.
Houghton.....	Yes; rarely.....	Yes; quite often.
Huron.....	No.....	Occasionally.
Ingham.....	No.....	Very seldom.
Ionia.....	No.....	No.
Iosco.....	No.....	Yes.
Iron.....	Only one return not made during my time as clerk.....	No; only the above one.
Isabella.....	Think not.....	Yes.
Jackson.....	No.....	Not often.
Kalamazoo.....	No.....	Yes; a few.
Kalkaska.....	Not any under present law.....	Not very often.
Kent.....	No.....	Yes.
Keweenaw.....	No.....	Very few, if any.
Lake.....	No.....	Sometimes.
Lapeer.....	Not at present.....	Occasionally.
Leelanau.....	No.....	Not many.
Lenawee.....	No.....	Occasionally.
Livingston.....	No.....	Sometimes.
Luce.....	No.....	One justice usually fails.
Mackinac.....	No.....	No.
Macomb.....	Yes.....	Yes.
Manistee.....	No.....	No.
Marquette.....	No.....	No.
Mason.....	No.....	Yes.
Mecoma.....	No.....	No.
Macominee.....	No.....	Once in awhile, but I go after them.
Midland.....	Don't know.....	Some do until punched.
Missaukee.....	No.....	Not often.
Monroe.....	One failure this year.....	It's occasionally done.
Montcalm.....	Very few.....	Yes.
Muskegon.....	No.....	No.
Nemadji.....	Since the law of 1887 became operative, our records show that a number of the licenses issued were not returned, some of which I know were not used. I am now trying to trace others.....	Occasionally.
Oshtemo.....	Not under the present law.....	Yes.
Oscoda.....	any.....	Yes.
Ontonagon.....	times.....	I think not.
Presque Isle.....	.....	No.
Richmond.....	.....	Yes.
Saginaw.....	.....	Yes.

Table 59.—Information received from a special report to the Secretary of State made by the clerk of each county in Michigan as to the neglect of clergymen and justices of the peace to make returns of marriages as required by law.—Concluded.

County.	Do any clergymen or justices of the peace fail to return marriages performed by them?	Do any fail to make returns within ten days as required by law?
Oscoda.....	No.....	No.
Otsego.....	Don't know.....	Don't know.
Ottawa.....	No.....	Not usually.
Presque Isle.....	No.....	No.
Roscommon.....	No.....	No.
Saginaw.....	No.....	Yes.
St. Clair.....	Yes.....	Yes.
St. Joseph.....	No.....	No.
Sanilac.....	No.....	No.
Schoolcraft.....	No.....	No.
Shiawassee.....	No.....	Yes.
Tuscola.....	No.....	Yes.
Van Buren.....	No.....	No.
Washtenaw.....	I have only had one case.....	Yes; a few have failed.
Wayne.....	No.....	Yes.
Wexford.....	Two licenses not returned this year; perhaps not used.....	Hardly ever.

To summarize: There were 63 counties in which the clerks answered the first question in the negative as to the failure of clergymen or justices to return marriages solemnized by them, while in 17 counties the clerks give the impression that marriages that were actually performed sometimes failed to be recorded; in three counties the clerks were unable to make any statement.

In reply to the second question as to whether clergymen and justices made their reports *promptly* as required by law, we find, as might be expected, that they failed to do so in a larger number of counties than those in which they are reported as entirely failing to make returns. In 51 counties some clergymen and justices fail to make prompt returns; in 30 counties it is stated that they comply with the law, and in two counties the clerks could not give any information on the subject.

Some additional light may be thrown on this matter by referring to Table 21 of the Michigan registration report for 1897, and to similar tables in preceding reports, which show that there were 379 licenses issued and not returned in Michigan for the year 1897, or two per cent of the total number of marriages. This is probably under the truth, because, as already stated, some county clerks fail to return licenses issued and not returned, and the large percentage of licenses not returned in certain counties, as for example 10.2 per cent in Mackinac county, 7.6 per cent in St. Clair county and 6.7 per cent in Wayne county, would suggest that there was a considerable amount of imperfection in these returns in some cases.

It is important, not only for the sake of reliable statistics, but also for the protection of the personal and legal interests of the citizens of the State and their children that every marriage that occurs in the State of Michigan shall be properly and at once placed upon record in the manner provided by law, and this cannot be satisfactorily done unless some amendment of the general nature of that suggested shall be put into effect.

(i) Lastly, we come to an amendment which is suggested in rather a tentative manner, but which so far would seem to have been generally

approved by those conversant with the present method of recording marriages.

It is undoubtedly true that the object of the marriage law in requiring a preliminary affidavit for license to marry, which should become a part of the public records of the county and State, and, as such, accessible to every citizen for proper uses, has been defeated by the practice customary in some places of withholding licenses from record for various reasons. The result is irregularity in the numbering of licenses, and it sometimes happens that marriages fail to be recorded, or at least recorded at the proper place in the records.

Finally, after considering the individual amendments proposed, all of which, with the exception of the first, which was advocated by those interested in a special reform in the marriage law, are intended solely to promote the general efficiency of the present marriage law, it should be said that it is not intended to convey the impression that the results of the law as it stands are not fairly satisfactory. All of the criticisms made upon it are merely as to improvement in certain administrative details, and, although it is important that we should have absolutely 100 per cent of the marriages that occur in the State on record, instead of 98.5 or 99 per cent, still we may claim that Michigan is very far in advance of most of the other States in this country in regard to the possession of a satisfactory marriage registration law. Even the State of New York has no law at present that can compare at all with the thoroughness and efficiency of that of Michigan, and the people are to be congratulated that such a satisfactory system, and one, which has produced records and statistics of so much permanent value, has been and is at the present time so well enforced in this State. The suggestions made are merely in the direction of securing yet greater precision in its enforcement, and if any legislation is undertaken to incorporate them into a law, the greatest care should be used that none of the present safeguards of accurate registration of marriages that now exist in the State are in any respect tampered with or removed. It would be better not to attempt any material improvement than to risk any interference with the present effectiveness of the law, unless we are absolutely certain that no unfortunate results would follow such legislative action.

SUMMARY OF THE REGISTRATION OF MARRIAGES IN MICHIGAN, 1899.

Some of the most important facts relative to the registration of marriages in Michigan during the year 1899 are herewith presented:

Total number of marriages returned, 1899.....	21,877
Persons married per 1,000 estimated population, 1899.....	18.0

The above statement does not include 40 marriages performed by Judges of Probate under the act authorizing secret marriages in certain cases. Eighteen of these secret marriages were at illegal ages according to the general laws of the State and others gave legal sanction to common-law unions, the couples being supposed to have been regularly married by the communities in which they live. A table showing the age distribution of these marriages may be found on page 117.

As compared with the preceding year of registration, we have:

Increase of marriages registered for the year 1899 (21,877) over the number for 1898 (20,138).....	1,739

As to the occurrence of marriages by months, we have:

More than average number.....	June, September, October, November, December
Less than average number.....	January, February, March, April, May, July, August
Favorite month for marriages, 1899.....	November, 2,464 or 24.8 per 1,000
Month of fewest marriages, 1899.....	February, 1,311 or 14.0 per 1,000
Month of lowest marriage rate.....	March, 1,324 or 12.9 per 1,000

Of the 21,877 marriages, there were with respect to nativity:

Both bridegroom and bride of native birth.....	14,043 or 64.2 per cent
Both bridegroom and bride of foreign birth.....	2,914 or 13.3 per cent

Including mixed marriages, that is, marriages in which bridegroom and bride were of different nativities, there were:

Males of native birth married, 1899.....	16,104 or 73.6 per cent
Males of foreign birth married, 1899.....	5,750 or 26.3 per cent
Females of native birth married, 1899.....	16,807 or 76.8 per cent
Females of foreign birth married, 1899.....	4,598 or 21.0 per cent

As to age at marriage, the most important groups were:

Males aged 20 to 24 years, both inclusive.....	8,181 or 37.4 per cent
Males aged 25 to 29 years, both inclusive.....	6,721 or 30.7 per cent
Females under 20 years of age.....	5,863 or 26.8 per cent
Females aged 20 to 24 years, both inclusive.....	9,140 or 41.8 per cent

MARRIAGES AND MARRIAGE RATES BY COUNTIES, 1899.

Besides the primary tables giving a full statement of the marriages returned from each county by months and periods of ages of persons married (Table I, page 107 and Table II, page 109) together with statement of nativity of persons married by counties (Table III, page 114), reference may be made to Table 7, page xxx, which shows the marriage rates for each county for the year. These rates are stated, as is the preferable statistical custom, as the number of *persons married* per 1,000 estimated population. In general such comparisons of marriages of persons married to the population are subject to further analysis on the basis of the number of unmarried persons in the population and the age-distribution. Such exceptional rates as those of Alger county, 50.7 per 1,000, and Berrien county, 42.2 per 1,000, are not comparable with the figures for other counties, owing to special conditions. In the case of Alger county the population increased much more rapidly from 1894 to 1899 than the estimate based upon the growth from 1890 to 1894 would indicate, and consequently the vital rates based upon this uniform estimated population are far too high. This is a necessary consequence of the employment of a uniform system of estimating population, which can take heed only of the previously known rate of growth, without allowance for unprecedented increase. The reason for the remarkably high marriage rate of Berrien county is shown in the following table (Table 8, page xxxii), which indicates an increase of 633 marriages in this county for 1899 over the preceding year, all of which or nearly all of which were marriages of nonresidents.

MARRIAGES RETURNED BY MONTHS, 1890-99.

In Table 60 the marriages returned in Michigan for the past ten years are shown according to the months in which the ceremonies were performed. For 1899 the largest number occurred in November, 2,464, and the least number, 1,311, was in February. The distribution of marriages through the year must be considerably affected, however, by the large number of foreign marriages in Berrien county, most of which occurred during the summer excursion season.

Table 60.—Marriages returned, by months, for the years 1890-99; with average for the ten-year period.

Years.	Total marriages.	Months of marriage.												
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.
1890.....	18,664	1,315	1,252	1,249	1,614	1,356	1,482	1,436	1,314	1,739	1,854	2,057	1,994	2
1891.....	19,244	1,466	1,326	1,339	1,623	1,419	1,502	1,380	1,383	1,749	1,986	1,984	2,086	1
1892.....	20,107	1,335	1,455	1,542	1,543	1,590	1,751	1,386	1,407	1,286	2,037	2,181	2,049	5
1893.....	19,197	1,452	1,273	1,318	1,663	1,574	1,769	1,408	1,356	1,730	2,018	2,060	1,574	2
1894.....	18,220	1,366	1,060	1,403	1,552	1,348	1,486	1,262	1,256	1,704	2,034	1,992	1,754	3
1895.....	18,962	1,389	1,342	1,324	1,536	1,456	1,690	1,367	1,349	1,658	2,110	2,036	1,694	1
1896.....	18,897	1,443	1,271	1,368	1,684	1,361	1,762	1,305	1,238	1,759	1,826	2,028	1,846	6
1897.....	18,579	1,179	1,273	1,426	1,441	1,354	1,828	1,235	1,258	1,719	1,887	2,044	1,935	.....
1898.....	20,138	1,397	1,302	1,400	1,613	1,482	2,056	1,315	1,487	1,793	2,043	2,264	1,979	7
1899.....	21,877	1,343	1,311	1,324	1,765	1,581	2,185	1,681	1,767	2,095	2,323	2,464	2,038	.....
Average 1890-99	19,388	1,369	1,287	1,369	1,603	1,452	1,751	1,378	1,382	1,723	2,012	2,111	1,895	3

Maxima in bold face type; minima in italics.

MARRIAGES BY MONTHS AND QUARTERS, 1899.

The distribution of marriages during the year 1899 is further shown in Table 61, where figures are given not only for the numbers returned but also showing the average number per day for each month, the rank on a standard scale and the rate per 1,000 of persons married by months for the year. It appears that while the fewest marriages occurred in February, owing to the shortness of the month the average daily number was greater than in either January or March. The month of highest rank, considered as to the choice for marriage, was November, while March was the least frequently chosen.

Comparisons of the results of the year 1899 may be made with the preceding ten years of registration by means of the same table, which has been corrected for the estimated increase of population. The total number of marriages for the year 1899 is somewhat greater than the corrected average for the ten years preceding, but if the additional foreign marriages in Berrien county be deducted, the increase will not be especially marked, when it is considered that the period 1890-99 includes several years of very serious financial depression, a condition which is always attended with a marked reduction in the marriage rate. The month of greatest frequency of marriages in the ten-year period was November, corresponding to the observation in the year 1899, and the months of least frequency of marriage were the same as those for the year 1890, namely, January and March.

Table 61.—Marriages in Michigan, by months and quarters, 1899.

Year and months.	Number of marriages, 1899.		Average number per day, 1899.	Rank.	Persons married per 1,000 population, 1899.	Ten-year period, 1890-99.		
	By months.	By quarters.				Average number.*	Average daily number.*	Rank.
Year		21,877	59.9	1,200	18.0	20,813	57.0	1,200
January	1,343	3,978	43.3	72	13.1	1,470	47.4	83
February	1,311		46.8	78	14.0	1,382	49.4	87
March	1,324		42.7	71	12.9	1,470	47.4	83
April	1,765	5,531	58.8	98	17.7	1,721	57.4	101
May	1,581		51.0	85	15.4	1,559	50.3	88
June	2,185		72.8	122	22.0	1,880	62.7	110
July	1,681	5,543	54.2	90	16.4	1,479	47.7	84
August	1,767		57.0	95	17.2	1,484	47.9	84
September	2,095		69.8	117	21.1	1,850	61.7	108
October	2,323	6,825	74.9	125	22.6	2,160	69.7	122
November	2,464		82.1	137	24.8	2,266	75.5	132
December	2,038		65.7	110	19.8	2,034	65.6	115
Average	1,823	5,469	59.9	100		1,730		100

* * Numbers given in Table 59 multiplied by 1.0735, the ratio between the population of Michigan in 1899 and the average estimated population of the period 1890-99. The monthly and daily numbers are, therefore, directly comparable for the year and ten-year period.

NATIVITY OF PERSONS MARRIED IN MICHIGAN, 1899.

The facts in regard to the nativity of persons married in Michigan during the year 1899, which may be found in detail in Table III, page 114, for each county of the State, are summarized in Table 62 and are compared by means of five-year averages with the corresponding figures for preceding years of registration.

Out of the 21,877 marriages during the year, 14,043 were those in which both the bridegroom and bride were of native birth. This corresponds to a percentage of 64.2, which is the same as the preceding year. The percentage of native born couples has somewhat increased, on the whole, from the earlier years of registration, which may be due in part to a decrease in the amount of immigration of marriageable persons into this State. The number of foreign born couples was 2,914, or 13.3 per cent, which was likewise the same as for the preceding year. The percentage of foreign born couples has fallen since the earlier years of registration.

Table 62.—By nativity, the number and per cent of brides and bridegrooms returned for the year 1899.

Bridegrooms and brides—nativity specified.		Brides, 1899.			Bridegrooms, 1899.	
		Native born.	Foreign born.	Unknown.	Total of each nativity.	Per cent of each nativity.
Bridegrooms	Native born.....	14,043	1,679	382	16,104	73.6
	Foreign born.....	2,751	2,914	85	5,750	26.3
	Unknown.....	13	5	5	23	0.1
Brides.....	Total of each nativity.....	16,807	4,598	472	21,877	
	Per cent of each nativity.....	76.8	21.0	2.2		100.0

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Table 63.—Nativity of marriages in Michigan for the years 1896-99; compared with averages for five successive quinquennial periods, 1871-95.

Years and periods averaged.	Nativity of marriages.—Per cent of total.				
	Both native born.	Both foreign born.	Foreign groom and native bride.	Native groom and foreign bride.	One or both unknown.
Average, 1871-75.....	59.7	18.5	12.3	7.0	2.6
Average, 1876-80.....	63.2	14.0	13.3	7.4	2.2
Average, 1881-85.....	58.2	19.4	12.4	8.7	1.3
Average, 1886-90.....	56.4	20.3	13.2	8.1	2.0
Average, 1891-95.....	58.0	18.2	13.2	7.9	2.6
Year 1896.....	61.1	16.2	12.5	8.0	2.3
Year 1897.....	63.3	13.6	12.3	8.1	2.7
Year 1898.....	64.2	13.3	12.2	8.0	2.2
Year 1899.....	64.2	13.3	12.6	7.7	2.2

AGES OF PERSONS MARRIED IN MICHIGAN, 1899.

Table II, beginning on page 109, shows the age distribution of persons married in Michigan by counties during the year, and Table IV, on page 116, shows the various age combinations of persons married, by sex; that is to say, how many males under 20 married females of the same age-period; how many married females aged 20-24 years, 25-29 years, and so on in order. The group of ages at which the greatest number of marriages occurred is that in which both the males and females were aged from 20-24 years, the number of marriages at these ages being 4,167. Next in order comes the group of males aged 20-24 years and females under 20, of which the number was 3,555 and then the group of males aged 20-29 years, with females aged 20-24 years, numbering 3,355. These three groups include 11,077 marriages or over 50 per cent of the total number recorded. The proportions of males and females married at each age-period may be seen in Tables 64 and 65, respectively, which compare the statistics for the year 1899 with the individual years, 1896-98, and five preceding quinquennial periods.

In 1899 the favorite marriage age for males was the period 20-24 years, at which 37.4 per cent of males were married. This is a decrease from the preceding year and also from the earlier years of registration, corresponding to a slight increase observed in the following period, 25-29 years.

With females the proportion of marriages under 20 years of age is very markedly less than it was during the earlier years of registration, being only 26.8 per cent. On the other hand the proportion at the age-period 20-24 years, or 41.8 per cent, is somewhat greater than that recorded for the earlier years of registration, while the percentage at the age-period 25-29 years, 16.1 per cent, is much greater than formerly. From 1871 to 1880, the proportion of females married under 20 years of age was greater than those married at the age-period 20-24 years, but at

present the ratios for these periods are about as 5 to 8. A general shifting of the distribution of ages at marriage may be observed towards the later periods.

Table 64.—Percentage of males married in Michigan at specified periods of age for the years 1896-99; compared with averages for five quinquennial periods, 1871-95.

Years and periods averaged.	Ages of males married, 1871-99.														Unk.
	Un- der 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 to 84.	
Average, 1871-75..	2.6	41.2	29.5	10.6	5.5	3.3	2.3	1.7	1.0	0.8	0.5	0.3	0.1	...	0.6
Average, 1876-80..	2.6	40.8	29.8	10.8	5.6	3.2	2.2	1.6	1.1	0.8	0.5	0.3	0.1	....	0.5
Average, 1881-85..	2.3	39.5	30.7	11.4	5.7	3.2	2.2	1.6	1.0	0.9	0.5	0.3	0.1	....	0.4
Average, 1886-90..	2.1	37.7	32.4	12.2	5.7	3.0	2.4	1.5	1.1	0.8	0.6	0.3	0.1	....	0.1
Average, 1891-95..	1.9	36.1	30.8	12.7	6.0	3.2	2.3	1.7	1.2	0.9	0.7	0.3	0.1	.....	
Year 1896.....	1.8	37.2	31.1	12.1	6.6	3.3	2.7	1.8	1.3	0.9	0.8	0.3	0.2	0.1	.....
Year 1897.....	1.9	37.6	30.8	12.1	6.7	3.7	2.2	1.8	1.2	0.9	0.6	0.4	0.2	.....	
Year 1898.....	1.7	38.1	30.6	12.3	6.6	3.3	2.5	1.7	1.1	0.9	0.6	0.3	0.2	0.1	.....
Year 1899.....	1.7	37.4	30.7	12.9	6.5	3.3	2.5	1.6	1.3	0.9	0.6	0.3	0.1	0.1	.....

Table 65.—Percentage of females married in Michigan at specified periods of age for the years 1896-99; compared with averages for five quinquennial periods, 1871-95.

Years and periods averaged.	Ages of females married, 1871-99.														Unk.
	Un- der 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 to 84.	
Average, 1871-75..	36.9	36.5	12.7	5.0	3.0	2.0	1.3	0.8	0.5	0.3	0.2	....	....	....	8.9
Average, 1876-80..	37.4	37.4	11.7	4.7	3.1	1.9	1.3	0.8	0.5	0.3	0.2	....	....	....	9.7
Average, 1881-85..	33.8	36.7	13.7	4.9	3.1	1.9	1.3	0.8	0.5	0.3	0.2	0.1	....	....	8.6
Average, 1886-90..	32.8	39.5	14.2	5.2	2.9	1.9	1.3	0.9	0.6	0.4	0.2	0.1	....	....	9.2
Average, 1891-95..	30.8	40.6	14.3	5.3	3.1	2.0	1.4	1.0	0.6	0.5	0.2	0.1	....	....	
Year 1896.....	29.1	40.7	13.3	5.4	3.4	2.0	1.5	1.1	0.7	0.5	0.2	0.1	....	....	9.1
Year 1897.....	29.6	40.6	13.0	5.6	3.3	1.9	1.4	1.0	0.7	0.6	0.2	0.1	....	....	
Year 1898.....	29.0	41.9	13.1	5.7	3.4	1.9	1.5	1.0	0.6	0.4	0.3	...	....	....	
Year 1899.....	28.8	41.8	16.1	5.7	3.4	2.1	1.5	1.0	0.6	0.5	0.2	0.1	....	....	9.1

PART IV.—DIVORCES IN MICHIGAN DURING THE YEAR 1899.

There were 2,218 divorces returned by county clerks to the Secretary of State as having been granted in Michigan during the year 1899. This number, as shown in Table 7, page xxx, corresponds to a rate of 1.8 persons divorced per 1,000 living population, which is just one-tenth of the marriage rate for the year, 18.0 persons married per 1,000 population. It would not be correct, however, to say, on the basis of these figures, that there was one-tenth as many divorces as marriages in the State in proportion to the population. The marriages are based on the unmarried population at marriageable ages, while the divorces are drawn from the number of married couples in Michigan, hence, there can be no direct comparison between the frequency of marriage and divorce considered with reference to the population capable of contributing to these events without further analysis of the figures.

It is true, however, and a fact of great significance, that there is over one divorce *granted* for every ten marriages performed in the State during the year, and, as will be shown in a following table, the number of marriages during the year 1899 was only about six times as great as the number of applications for divorce. This is a very striking commentary on the condition of social life in this State at the present time, and especially on the viciousness and hard-heartedness which must characterize a large proportion of the population of the State, when we consider that nearly 50 per cent of these cases involve, at least for the purpose of making an official court record, the charge of extreme cruelty. It is needless to say that too much consideration cannot be given to the alleged causes for divorce, as in many cases they would seem to be arranged more with reference to their appearance in the court records than to their intrinsic truthfulness; at least this would seem to be a reasonable inference from the large proportion of cases based on "extreme cruelty" and "desertion."

As compared with the preceding year, there was an apparent increase of 410 divorces granted. This probably somewhat exceeds the actual increase for the year 1899 over 1898, for it is not unlikely that the accuracy of the returns was somewhat greater in the latter year. The law for the registration of divorces in Michigan, under which they are returned by the county clerks to the Secretary of State, went into effect in 1897, so that the returns for 1898 were for the first complete year under the new law, although by a retroactive provision a report was made for the calendar year 1897. In some cases county clerks have neglected to use as much care as would have been desirable in making the returns, on the ground that no special compensation was provided in the law. Study of the tables printed in the report for 1898 and in the present report (Table 66), and comparison of the totals there shown as based on the "summaries" returned by the county clerks with the results of the com-

pilation of the schedules of divorces also returned by them, will show that there have been great variations in certain counties in making these reports, so that the results cannot be accepted in all cases with implicit confidence owing to the negligence or incapacity of certain county clerks. Thus in Table 66, following, the number of divorces granted for the year was reported as 2,328, or 110 more than the number of divorces actually returned to the Secretary of State on the schedules. Comparisons of the returns by counties will show in what counties the two statements of the county clerks do not correspond. It will be noted that there were 73 divorces granted but not recorded on account of the failure of the attorneys or other representatives of the divorced parties to pay the final fees. This would perhaps account for some of the 110 cases by which the summaries exceed the schedule returned, and points strongly to the necessity of a law which will provide for a complete record of every divorce granted in the State, by means of a preliminary declaration in the same way as marriages are put upon record through the filing of an affidavit for license to marry.

PROPOSED LEGISLATION FOR THE IMPROVEMENT OF STATISTICS OF DIVORCES.

At the last session of the legislature a bill was introduced to provide for the preliminary record of divorce proceedings by Hon. W. A. Reed of Jackson, which, had it become a law, would have placed the condition of divorce records in this State on a much more satisfactory footing than they are at present. Following is the text of the bill, as amended and recommended by the Committee on State Affairs of the House of Representatives:

A BILL to provide for the proper record of divorce proceedings in Michigan.

The People of the State of Michigan enact: SECTION 1. That applicants for divorce in all courts in this State shall file with the clerk of the court a preliminary declaration under oath containing the following particulars, viz.: Full name of plaintiff and full name of defendant, including the maiden name of wife; age of each at last previous birthday; date of marriage; place of marriage; number of children in family; alleged cause for which divorce is sought. The clerk shall enter this information in a register of divorces provided by the State, giving a separate serial number to each application, beginning with "No. 1" for the first application in each year, and shall further enter in each case the date of application, date of final action of the court thereon, whether the same was contested or not, and in case of a cross-bill, shall refer to the same; whether the divorce was granted, refused, withdrawn or otherwise disposed of; and whether the divorce, if granted, was absolute, or what conditions were prescribed, if any.

SEC. 2. The applicant for divorce shall pay to the county clerk, on filing the preliminary declaration required in section one of this act, a fee of two dollars, which shall cover the entire expense of entering the preliminary declaration upon the register, of completing the record by entering the judgment of the court, of furnishing one duly certified copy of such record to each party to the suit, and of making full statistical returns to the Secretary of State relative to divorces as required by sections 4628 and 4629 of the Compiled Laws of 1897.

The bill was given very careful consideration by the Committee on State Affairs of the House, Hon. Robert Alward, Chairman, which Committee inserted the amount therein stated as a preliminary fee to cover the clerical expense of making the complete record in each case, and it was passed by the House on March twenty-fifth, 1901. For some mysterious reason, its return was requested after reaching the Senate, but no further action was taken. The proposer of its recall, which was done in

the absence of the introducer of the bill, intimated that the requirement of a preliminary fee might work some hardships on the "poor widows" and "indigent persons," who are in the habit of applying for divorces. It was understood, on the other hand, that the small amount of the fee was not acceptable to some county clerks, who had been accustomed to receive much larger compensation in connection with such records. At any rate this matter should be satisfactorily settled, and, if the bill was not in entirely satisfactory form in this or other respects, it should be redrafted so that the important purpose for which it was intended can be accomplished, namely, that a proper statistical record shall be made of every divorce proceeding in the State. Many or most of the county clerks in the State take great pains in keeping correct records, and, as was shown by the special report made to this Department, in 68 counties of the State they have provided county record books of divorces, although not required by any law to do so, to correspond to the returns made to the State Department under the law of 1897. In other counties no record book of divorce proceedings is kept, and the county clerk cannot make an intelligent or consistent answer from year to year as to even the gross number of divorces granted.

Table 66.—Divorce business in Michigan, by counties, during the year 1899, showing, according to the "Summaries" filed by the county clerks, the number of bills for divorce pending at the beginning and end of the year, number filed during the year, number withdrawn or otherwise disposed of, number contested, and the number of divorces granted and refused.

State and counties.	Number of bills pending on January 1, 1899.	Number of bills filed during 1899.	Number of divorces granted 1899.	Number of divorces refused 1899.	Number of cases withdrawn, etc., 1899.	Number of bills pending on December 31, 1899.	Total number of cases, 1899.	Number of cases contested, 1899.	Number of divorces granted but not recorded on account of non-payment of fees.
STATE....	2,969	3,589	2,328	35	173	4,012	6,548	503	73
Alcona *.....									
Alger.....	13	9	5	1	7	9	22		0
Allegan.....	50	54	38	0	4	62	104	9	
Alpena.....	19	17	10	1		25	36		
Antrim.....	17	28	22		1	22	45	4	
Arenac.....	6	13	7			12	19		
Baraga.....	1	1	1				1		
Barry.....	28	51	30		1	46	77		3
Bay.....	91	59	34		2	114	160	7	
Benzie.....	10	10	9		2	9	20		2
Berrien.....	55	78	58		5	70	133		
Branch.....	35	54	31	1	4	53	89		
Calhoun.....	96	80	50		1	125	176	9	6
Cass.....	28	30	25	1	2	30	58	2	
Charlevoix.....	25	15	11			29	40	5	3
Cheboygan.....	12	16	16	1		11	28	1	4
Chippewa.....	16	18	7	1	1	25	34	2	
Clare.....	10	10	8		2	10	20	7	1
Clinton.....	62	50	33	1	2	76	112		
Crawford.....		4	1			3	4		
Delta.....	6	26	11		3	18	32	4	
Dickinson.....	6	4	5			5	10	1	
Eaton.....	44	79	54	1		68	123	18	8
Emmet.....	20	25	13			32	45		
Genesee.....	42	82	61	3	4	56	124	9	

* No Summary was filed by the county clerk. Only one divorce was granted according to his schedule.

VITAL STATISTICS OF MICHIGAN, 1899

Table 66.—Concluded.—Divorce business in Michigan.

Counties.	Number of bills pending on January 1, 1899.	Number of bills filed during 1899.	Number of divorces granted 1899.	Number of divorces refused 1899.	Number of cases withdrawn, etc., 1899.	Number of bills pending on December 31, 1899.	Total number of cases, 1899.	Number of cases contested, 1899.	Number of divorces granted but not recorded on account of non-payment of fees.
Gladwin.....	3	5	5			3	8		1
Gogebic.....	30	10	6		1	33	40		
G'd Traverse.....	23	54	40			37	77		
Gratiot.....	40	78	69		1	48	118		18
Hillsdale.....	20	50	36		6	28	70	7	
Houghton.....	20	27	27		1	19	47		
Huron.....	5	21	11		1	14	26		
Ingham.....	105	101	44		2	180	206	6	
Ionia.....	69	68	46		4	87	137		1
Iosco.....	8	6	10			4	14	2	
Iron.....	0	4	0	0	0	4	4		
Isabella.....	18	29	15			32	47	3	
Jackson.....	69	132	87	3	2	109	201	14	
Kalamazoo.....	83	96	60	1	1	107	169	31	
Kalkaska.....	12	17	10		3	16	29	2	1
Kent { Sup.Ct. 238 40 17 1 260 278 4 1	182 277 208 6 245 459 0 0								
Keweenaw.....	0	0	0	0	0	0	0	0	0
Lake.....	6	5	2	1		8	11		
Lapeer.....	30	28	18	1		39	58	7	
Leelanau.....	2	9	2	2		9	11		
Lenawee.....	80	75	49	1	3	102	155		3
Livingston.....	10	26	23			13	36	1	1
Luce.....	8	2	2			8	10		
Mackinac.....	6	4	2			8	10		
Macomb.....	36	42	22		1	55	78	6	
Manistee.....	22	24	16	1		29	46	2	
Marquette.....	19	13	14			18	32	1	
Mason.....	10	14	5	1	4	14	24		
Mecosta.....	29	25	24	3		27	54		3
Menominee.....	15	21	13		1	22	36		
Midland.....	19	8	8			19	27	1	
Missaukee.....	16	13	6	5		18	29	1	1
Monroe.....	12	35	28			19	47		
Montcalm.....	24	53	31		2	44	77	4	
Montmorency.....	1	2			1	2	3		
Muskegon.....	44	54	34		3	61	98	4	
Newaygo.....	6	21	16		1	10	27		
Oakland.....	52	76	43	1	6	78	128		
Oceana.....	29	31	21		1	38	60	4	2
Ogemaw.....	4	2	2	1		3	6	1	
Ontonagon.....		1	1				1		
Osceola.....	10	21	9		2	20	31		
Oscoda.....		1	1				1		
Otsego.....	8	6	10			4	14	1	
Ottawa.....	22	24	11			35	46		
Presque Isle.....	7	4	6			5	11		
Roscommon.....		3	1			2	3		
Saginaw.....	71	120	76	2	7	106	191	9	1
Sanilac.....	23	15	14			24	38		
Schoolcraft.....	14	16	8		2	20	30	2	
Shiawassee.....	54	70	45		20	59	124		
St. Clair.....	132	72	33		1	170	204	6	10
St. Joseph.....	25	27	21		1	30	52		
Tuscola.....	44	65	34	1	2	72	109	5	
Van Buren.....	44	55	50			49	99		3
Washtenaw.....	21	71	52	1	7	32	92	30	
Wayne.....	249	590	322	1	38	478	839	271	
Wexford.....	141	27	22			146	168		

DIVORCES

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DIVORCE BUSINESS IN MICHIGAN, 1899.

Table 66 shows the general amount of divorce business coming before the courts of Michigan during the year 1899; according to the summaries returned by the county clerks. Following is a reproduction of the form of the "Summary of Returns Relative to Divorces" used by the Department in obtaining these returns for that year, and also a copy of the circular of instructions on the reverse side of the blank:

 This return must be made on or before the first day of February, 1900.

SUMMARY OF RETURNS RELATIVE TO DIVORCES,

County of....., State of Michigan, for the year 1899.

To the Honorable Secretary of State, Lansing, Mich.:

SIR—As required by Public Act No. 9 of 1897, I herewith submit returns relative to Divorces coming before this Court during the year 1899:

Number of Petitions or Bills <i>Pending at the Beginning of the Year</i> (Jan. 1, 1899)	.....
Whole number of Petitions or Bills <i>Filed</i> during the Year,	- - -
Total A,	- - - - -
Number of Divorces <i>Granted</i> during the Year 1899,	- - - - -
Number of Divorces <i>Refused</i> during the Year 1899,	- - - - -
Number <i>Withdrawn</i> or otherwise disposed of during the Year 1899,	- - -
(Number of cases contested.....)	
Number of Petitions or Bills <i>Pending at the End of the Year</i> (Dec. 31, 1899)	.....
Total B,	- - - - -

Also, in the accompanying Schedule, I give a detailed statement of the facts required in the case of each Divorce coming before this Court during the year 1899.

Very respectfully,

Dated.....1900.

....., Michigan.

Clerk of.....Court,

County of.....

 PLEASE READ CAREFULLY the Instructions to County Clerks on the other side of this sheet in regard to filling out the Summary and also in regard to making the returns on the Schedules. The latter should be made out first, as they will serve as an aid in making out the above Summary, and should include all divorce suits acted upon by the Court during the year. Hence copy the records in (1) all suits begun in any previous year but whose date of final action, either as granted, refused, withdrawn, etc., occurred in the year for which this return is made; and (2) all suits *begun* during the current year, whether granted or not at end of year, entering the word "pending" opposite all of these upon which no final action has occurred.

INSTRUCTIONS TO COUNTY CLERKS IN REGARD TO THE RETURN OF DIVORCES.

MICHIGAN.
DEPARTMENT OF STATE.

LANSING, December 18, 1899.

To County Clerks:

GENTLEMEN—Your returns of Divorces for the year 1899 will soon be due at this Department. They should be sent in without fail during the month of January, 1900, so that all will be here by February 1. We send you herewith a supply of sections for the return of ALL DIVORCES ACTED UPON—EITHER GRANTED OR REFUSED—by your Court during the year 1899.

As some difficulty has been experienced in properly making these returns, we have formulated the following suggestions based on experience. Please see that your clerks or deputies thoroughly understand these instructions so that the tedious process of sending the returns back for corrections or additions may be avoided. We send two copies of this circular and form of report so that one can be preserved for reference. It is advisable to write up these returns during the year on the Schedule sheets, reserving the final Summary until the close. By so doing, very prompt reports can be made. Schedule sheets will be supplied at any time for this purpose, if any Clerk is not already fully provided.

HOW TO MAKE THE RETURNS OF DIVORCES.

1. Report of Each Divorce Acted Upon During the Year.—Take a Schedule section (the sections consist of three sheets or six pages, the same as those of marriages), and beginning on the first folio page give the details, so far as recorded in your files, for EACH DIVORCE ACTED ON DURING THE YEAR 1899. This means ALL DIVORCES REFUSED AND ALL CASES WITHDRAWN as well as ALL DIVORCES GRANTED. Please note especially that all cases acted upon during the year 1899 must be returned; it is entirely immaterial whether such cases were begun in 1899 or in previous years, as many of them were. The proper column in the Schedule shows that fact. Do NOT OMIT any divorces acted upon in 1899 because the suits were begun in a previous year.

2. "Report of Divorces Pending."—We shall not require a return of each case pending to be entered upon the Schedule in full. Only cases acted upon during the year need be given in the Schedule, as explained above. A statement of divorces pending is required, however, for the Summary, as stated below.

3. Filling Out the "Summary" for the Year.—After making out a return of each individual case acted upon during the year, as explained above, and comparing the same with the originals to insure correctness, in the same manner that all returns of marriages, births and deaths are, or should be compared, run over the Schedule and find the total number of (1) Divorces granted; (2) Divorces refused; (3) Cases withdrawn or otherwise disposed of, and make a note of the number of cases contested. Set down these numbers in the places prepared for them on the Summary. Now examine your files and determine: (1) The total number of Petitions Pending at the end of the year 1899; (2) The total number filed during the year 1899, including those granted, refused, withdrawn, etc., during that year; (3) The total number pending at the beginning of the year 1899. The latter number may be arrived at in another way: It is evident that if we subtract from the number pending at the end of the year 1899, all of the cases filed during the year, and to the difference add all of the cases granted, refused or withdrawn during the year, we shall have the number pending at the beginning of the year 1899.

4. Proof of the "Summary."—Total "A" should equal total "B." That is, the sum of the cases pending at the beginning of the year and the petitions filed during the year (total volume of divorce business) should equal the number of cases granted, plus the number refused, plus the number withdrawn, etc., added to the number of cases pending at the close of the year.

5. What are "Cases Pending?"—We mean by this term only "live" divorce cases now on the docket of the Court for action. Final decrees have not been entered in some cases of years standing, and which have been decided long ago. Clerks can usually determine, with approximate accuracy, what cases are actually pending at the present time, and from this basis the number pending in future returns can be derived by adding the cases begun and subtracting the cases disposed of.

While the "Summary" is important, it is even more important that the "Schedules" giving the record of each individual divorce acted upon be accurately filled out. Never use "ditto" marks, but write each statement in full.

Very respectfully,

JUSTUS S. STEARNS,
Secretary of State.

It will be noted that the columns of Table 66 correspond to the items returned in the summary, and that the total number of bills pending on January first of the year, 2,959, added to the number of bills filed during the year, 3,589, gives a total of 6,548 cases before the courts of Michigan during the year, while the number of divorces granted during the year,

2,328, added to the number of divorces refused, 35, the number of cases withdrawn or otherwise disposed of, 173, and the number of bills pending at the end of the year, 4,012, gives the same total. These figures, however, as previously stated, cannot in all cases be accepted with implicit confidence for individual counties as they may not agree in the item of divorces granted, with Tables I and II, pages 122 and 132, which contain the compilation as made on the basis of the schedules returned by the county clerks.

The total number of divorces granted, according to Table 66, is greater by 110 cases than the number actually returned, to the State Department, and compiled as the basis of the following tables, so that it is not unlikely that other differences may occur in the items of Table 66. In the report for 1898, the table corresponding to Table 66 is Table I, page 119. (Table 66 will be restored to its position as a primary table in the report for next year; it was thought that the inaccuracies in this table rendered it inadvisable to continue it as an essential part of the registration report, but, on further consideration, it seemed desirable to retain it, as the very inaccuracies are a good indication of the probable amount of error attaching to the returns of divorces.) Comparing these two tables, it is evident that the columns showing the number of bills pending on December thirty-first, 1898, 3,323, *ought* to correspond to the column in the table of the present report showing the number of bills pending on January first, 1899, 2,959. The decline of 364 cases over a single night shows that the county clerks could not make harmonious statements for the two years with respect to the actual number of cases before their courts. It is probable, however, that as the recording of divorces becomes a more thoroughly established system, that greater attention will be paid to accurate statements in this respect. For this reason, if for no other, the provision of the law requiring a preliminary fee in full discharge of all duties of the clerk in regard to the final record of divorces is most imperative, because the files of the courts are now encumbered in many cases with divorce proceedings which have long been finally passed upon, or have been withdrawn, but in which no final record has been made, so that the true number of cases actually pending is a very uncertain quantity.

With all of its imperfections, however Table 66 is a most interesting and suggestive one. It shows even more forcibly than the record of divorces granted, how large a number of applications are annually made for separation from the marriage ties, and how great an amount of unhappiness must be averted by the kindly action of our legislatures during the past in providing for the facile separation of bonds which were once supposed to be eternal. It must be that applications are made for divorces in most cases with great justice, for only 35 divorces were refused during the year and only 173 were accounted for as withdrawn or otherwise disposed of. An interesting feature is that of the 6,548 cases before the Michigan courts during the year, out of which 2,328 cases were granted according to Table 66, only 503 were contested, less than 25 per cent of the divorces granted.

COMPARATIVE STATISTICS OF DIVORCES.

Very few States in this country present any reliable statistics of their marriages and divorces, so that few comparisons can be made in this respect. The compilation made by the United States Commissioner of Labor some years ago, 1867-86, has now become antiquated, and there is need that a similar compilation be made for the years since 1887. It may be of interest, however, in this connection to present some interesting comparisons printed in the last Annual Report of the National League for the Protection of the Family:

The call for the latest statistics is increasing. Many are anxious to get the data since 1886, the last year whose figures were included in the Report of the Department of Labor at Washington, which was published in 1889. As only eight or nine States collect and publish their statistics of marriage and divorce, and many changes have since been made in the laws relating to these subjects, it has become very important that a supplementary investigation be ordered to bring that Report down to date. When this is done we can study the movement for thirty-five years with a good degree of intelligence. The problem of uniformity will have further light thrown upon it. We have already taken steps to secure this investigation as soon as practicable. The resolution of the league will be found in the minutes. All interested are requested to urge provision for it upon their representatives in Congress. A comparatively small sum of money only is needed for the work.

SUGGESTIVE FIGURES.

Our own collection of statistics from the few sources open to private effort gives some interesting results. Connecticut, once regarded as the worst of Eastern states in respect of easy divorce, now shows some improvement as compared with the increase of population, and even absolutely; for she has granted fewer divorces in the last seven years than in the preceding seven. A better public sentiment and a more careful procedure of the courts seem to be the chief reasons for this. The ratio of divorces to marriages is now 1 to 15.8. In earlier years it was as high as 1 to 9. Rhode Island, on the contrary, now grants four hundred or more annually, or 1 to 8.2 marriages. In Massachusetts, divorces are increasing, though as yet the ratio is not more than 1 to 20.2, and the number granted in 1889 was 1,163. I have tried in vain to get New Jersey figures for recent years; for although this state adds desertion to the one cause for which divorce is permitted in New York, her rate is much lower than in New York. One divorce to fifty marriages is about the highest ratio known in New Jersey. This is largely due to the conditions of the administration of the divorce laws in that state, which puts all divorce suits into its court of chancery, whose methods secure thorough trials.

Three or four typical states in the interior give some striking figures. Divorce in Oklahoma increased from 2,270 in 1889 to 3,217 in 1899, and the ratio to marriages has become 1 to 10.9. There were 2,418 divorces in Michigan in the year 1900 or 1 to 9.6 marriages. Here about two-thirds of the applications are granted. In some states three-fourths of the suits are successful. In Michigan the statistics show that nearly all of the divorces are granted to residents of the State. Indiana shows a remarkable change for the worse. Almost a generation ago Indiana was notoriously bad. Then the laws were improved and her divorce rate was no worse than that of some states in the east; but for some unexplained reason divorces of late have increased rapidly. In 1899 there were granted no less than 4,031 divorces, and 4,699 in the year 1900. In the last year the ratio of divorces to the marriages of the same year became 1 to 5.7 for the entire state, and as was shown in another place, much worse in the county containing Indianapolis.

We are sure that the data showing the number of divorced persons married each year in Connecticut will be tabulated. The admirable vital statistics of Michigan give much excellent material for study. The German statistics for 1900, the first year under the uniform law for the entire empire have not yet reached us. It is difficult for private parties to bring together the figures of even a few states and countries for recent years. A supplementary report by the Department of Labor can easily enable us to do this for our own and many other countries, and with many valuable details of the great social movement which it indicates.

A LOW BIRTH RATE.

The slow growth of positive decrease in the members of Sunday schools and some other agencies of the churches has drawn attention to the low birth rate that prevails in some of our states, especially in that class of the population known as the native stock. Some of our states show a birth rate so much lower than that of France, where the subject has become a matter of grave public concern; that it has been assigned as the chief or leading cause for the decline of Sunday schools and of public schools in country towns and perhaps of other associations made up of the young. Two things, however, should be said in qualification. There has been no such recent and sudden decline in the birth rate as the losses in Sunday schools indicate. On the contrary, it has been going on for thirty or forty years, with fluctuations usually periodic. And again, American statistics of births are as a rule hardly complete enough to warrant very confident conclusions from comparisons made with other countries.

But after making these allowances, we must say that students and friends of American family life may well give serious attention to the evidently lessening size of the American family that has been going on for several generations on American soil. If French patriotism is concerned for its low birth rate a half a century or so too late, we may do well to consider our own tendencies before recovery is practically impossible, or extremely difficult. So far as the statistics go the situation is beginning to be a grave one. A serious feature with us is that the fewest children are often, if not generally, found in families apparently the best able, in a general way, to care for them, leaving the less fit to make the larger contributions to the succeeding generations. It is alleged, too, that sterility among American women is increasing, from various causes.

CHILDREN AFFECTED BY DISSOLUTION OF FAMILIES, 1899.

Table 67 presents in condensed form the results given in detail in Table I, page 122, and Table II, page 132, by counties and causes alleged for divorce, with respect to the number of children in the families thus destroyed. Of the total number of divorces, 69.6 per cent were begun on applications of the wives and 30.4 per cent upon the applications of the husband, as compared with 73.9 per cent and 26.1 per cent for the preceding year. In 1,074 cases, or nearly one-half of the total number of divorces, there were no children affected by the separation. The percentage of applications of wives in these cases is somewhat lower than the average, as is also true of families having three children or more. For

Table 67.—Children affected by divorces in Michigan during the year 1899, showing the relation of sex of complainant to size of family.

Complainants.	Total divorces granted, 1899.	Number of children in family.											
		None.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	Unk.
Total divorces	2,218	1,074	531	302	132	76	45	28	11	3	2	2	1
Husbands.....	675	372	121	78	43	28	15	10	4				4
Wives.....	1,543	702	410	224	89	48	30	18	7	3	2	2	7
Per cent of husbands.....	30.4	34.6	22.8	25.8	32.6	36.8	33.3	35.7	36.4				36.4
Per cent of wives.....	69.6	65.4	77.2	74.2	67.4	63.2	66.7	64.3	63.6	100.0	100.0	100.0	63.6
Total number of children affected.	2,381		531	604	396	304	225	168	77	24	18	20	14

present the ratios for these periods are about as 5 to 8. A general shifting of the distribution of ages at marriage may be observed towards the later periods.

Table 64.—Percentage of males married in Michigan at specified periods of age for the years 1896-99; compared with averages for five quinquennial periods, 1871-95.

Years and periods averaged.	Ages of males married, 1871-99.														
	Under 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 +	Unk.
Average, 1871-75..	2.6	41.2	29.5	10.6	5.5	3.3	2.3	1.7	.0	0.8	0.5	0.3	0.	...	0.6
Average, 1876-80..	2.6	40.8	29.8	10.8	5.6	3.2	2.2	1.6	.1	0.8	0.5	0.3	0.	....	0.5
Average, 1881-85..	2.3	39.5	30.7	11.4	5.7	3.2	2.2	1.6	.0	0.9	0.5	0.3	0.	.....	0.4
Average, 1886-90..	2.1	37.7	32.4	12.2	5.7	3.0	2.4	1.5	.1	0.8	0.6	0.3	0.	.....	0.1
Average, 1891-95..	1.9	36.1	30.8	12.7	6.0	3.2	2.3	1.7	.2	0.9	0.7	0.3	0.	.....	...
Year 1896.....	1.8	37.2	31.1	12.1	6.6	3.3	2.7	1.8	1.3	0.9	0.8	0.3	0.2	0.1	.....
Year 1897.....	1.9	37.6	30.8	12.1	6.7	3.7	2.2	1.8	.2	0.9	0.6	0.4	0.2	.....	.....
Year 1898.....	1.7	38.1	30.6	12.3	6.6	3.3	2.5	1.7	1.1	0.9	0.6	0.3	0.2	0.1	.....
Year 1899.....	1.7	37.4	30.7	12.9	6.5	3.3	2.5	1.6	.3	0.9	0.6	0.3	0.1	0.1	.....

Table 65.—Percentage of females married in Michigan at specified periods of age for the years 1896-99; compared with averages for five quinquennial periods, 1871-95.

Years and periods averaged.	Ages of females married, 1871-99.														
	Under 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 +	Unk.
Average, 1871-75..	36.9	36.5	12.7	5.0	3.0	2.0	1.3	0.8	0.5	0.3	0.2	...	.....	...	0.9
Average, 1876-80..	37.4	37.4	11.7	4.7	3.1	1.9	1.3	0.8	0.5	0.3	0.2	...	.....	...	0.7
Average, 1881-85..	33.8	38.7	13.7	4.9	3.1	1.9	1.3	0.8	0.5	0.3	0.2	0.1	.....	...	0.6
Average, 1886-90..	32.8	39.5	14.2	5.2	2.9	1.9	1.3	0.9	0.6	0.4	0.2	0.1	.....	...	0.2
Average, 1891-95..	30.8	40.6	14.3	5.3	3.1	2.0	1.4	1.0	0.6	0.5	0.2	0.1	.....	...	.....
Year 1896.....	29.1	40.7	15.3	5.4	3.4	2.0	1.5	1.1	0.7	0.5	0.2	0.1	.....	...	0.1
Year 1897.....	29.6	40.6	15.0	5.6	3.3	1.9	1.4	1.0	0.7	0.6	0.2	0.1	.....	...	.....
Year 1898.....	28.0	41.9	15.1	5.7	3.4	1.9	1.5	1.0	0.6	0.4	0.3	...	.....	...	.....
Year 1899.....	26.8	41.8	16.1	5.7	3.4	2.1	1.5	1.0	0.8	0.5	0.2	0.1	.....	...	0.1

PART IV.—DIVORCES IN MICHIGAN DURING THE YEAR 1899.

There were 2,218 divorces returned by county clerks to the Secretary of State as having been granted in Michigan during the year 1899. This number, as shown in Table 7, page xxx, corresponds to a rate of 1.8 persons divorced per 1,000 living population, which is just one-tenth of the marriage rate for the year, 18.0 persons married per 1,000 population. It would not be correct, however, to say, on the basis of these figures, that there was one-tenth as many divorces as marriages in the State in proportion to the population. The marriages are based on the unmarried population at marriageable ages, while the divorces are drawn from the number of married couples in Michigan, hence, there can be no direct comparison between the frequency of marriage and divorce considered with reference to the population capable of contributing to these events without further analysis of the figures.

It is true, however, and a fact of great significance, that there is over one divorce *granted* for every ten marriages performed in the State during the year, and, as will be shown in a following table, the number of marriages during the year 1899 was only about six times as great as the number of applications for divorce. This is a very striking commentary on the condition of social life in this State at the present time, and especially on the viciousness and hard-heartedness which must characterize a large proportion of the population of the State, when we consider that nearly 50 per cent of these cases involve, at least for the purpose of making an official court record, the charge of extreme cruelty. It is needless to say that too much consideration cannot be given to the alleged causes for divorce, as in many cases they would seem to be arranged more with reference to their appearance in the court records than to their intrinsic truthfulness; at least this would seem to be a reasonable inference from the large proportion of cases based on "extreme cruelty" and "desertion."

As compared with the preceding year, there was an apparent increase of 410 divorces granted. This probably somewhat exceeds the actual increase for the year 1899 over 1898, for it is not unlikely that the accuracy of the returns was somewhat greater in the latter year. The law for the registration of divorces in Michigan, under which they are returned by the county clerks to the Secretary of State, went into effect in 1897, so that the returns for 1898 were for the first complete year under the new law, although by a retroactive provision a report was made for the calendar year 1897. In some cases county clerks have neglected to use as much care as would have been desirable in making the returns, on the ground that no special compensation was provided in the law. Study of the tables printed in the report for 1898 and in the present report (Table 66), and comparison of the totals there shown as based on the "summaries" returned by the county clerks with the results of the com-

families with one or two children, the percentage of applications of wives is greater than the average. The total number of children affected by divorces granted was 2,381, or an average of over one child to each divorce granted in the State.

DURATION OF MARRIAGE PRIOR TO DIVORCE, 1899.

Table 68, derived from the same primary sources as the preceding table shows the duration of marriages terminated by divorce during the year. Out of 2,218 divorces granted in Michigan during the year 1899, 617 were of marriages which had existed less than five years, 618 were of marriages of from five to nine years duration; 385 of marriages that had lasted from ten to fourteen years, and so on down to three divorces of couples who had been married from forty-five to forty-nine years, and one dissolution of a marriage that had existed for over half a century.

The percentage of application of wives is above the average for marriages severed by divorce within five years, and also for those lasting from ten to fourteen years, and from twenty to twenty-nine years. The percentage of husbands applying for divorce is higher than the average for marriages that lasted from five to nine years, and from fifteen to nineteen years. Above the lower periods the number of marriages is too small to give any accurate deductions from a single year.

Table 68.—Duration of marriages terminated by divorces granted in Michigan during the year 1899, showing the relation of sex of complainant to lapse of time before divorce.

Complainants.	Divorces granted, 1899.	Duration of marriage before divorce.																
		Years under 5.					Five-year periods.											
		Under 1 year.	1.	2.	3.	4.	Under 5 years.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	Unk.
Total divorces	2,218	48	112	108	145	144	617	618	385	251	157	84	59	18	5	3	1	20
Husbands.....	675	13	28	38	39	55	173	216	101	80	46	20	22	5	1	1	1	9
Wives.....	1,543	35	84	130	106	89	444	402	284	171	111	64	37	13	4	2	....	11
Per cent of husbands.....	30.4	27.1	25.0	22.6	26.9	38.2	28.0	35.0	26.2	31.9	29.3	23.8	37.3	27.8	20.0	33.3	....	45.0
Per cent of wives.	69.6	72.9	75.0	77.4	73.1	61.8	72.0	65.0	73.8	68.1	70.7	76.2	62.7	72.2	80.0	66.7	....	55.0

CAUSES OF DIVORCES GRANTED IN MICHIGAN, 1899.

Table 69 presents in very condensed form the general causes responsible for divorces during the year, as derived from the detailed statement given in Table II, page 132. The principal causes of divorce in Michigan, according to the records of the courts, are, in the order of their importance, cruelty, which was an element in 49.6 per cent of the total divorces granted; desertion, which affected 33.0 per cent of all divorces granted; nonsupport, which was a factor in 27.9 per cent. Minor causes are drunkenness, 4.6 per cent, and adultery, 3.7 per cent.

The distribution of these causes is different for the two sexes. Thus, of the husbands applying for divorces, 48.3 per cent pleaded desertion as an element of the charge, 44.9 per cent pleaded cruelty as a factor; and 8.9 per cent of the husbands made charges of adultery. Of the divorces granted on application of the wives, in 51.7 per cent cruelty was a factor, and in 39.4 per cent nonsupport contributed to the separation. Desertion was pleaded in 26.2 per cent of the cases, and adultery in only 1.5 per cent.

It will be noted that owing to the fact that two to three or even more grounds for divorce may be stated in the petition, it is impossible to say just how many divorces were due to cruelty, desertion, drunkenness, etc. In the percentages above given the causes referred to entered as factors with other causes. Cruelty, was given as the sole cause in 34.6 per cent of all cases; desertion in 26.7 per cent; nonsupport in 13.1 per cent; adultery in 2.9 per cent and drunkenness in 1.7 per cent. It cannot be supposed, however, that in the *alleged causes*, the actual causes leading to divorce are always given, so that the above statements must be accepted as in some measure as conventional distinctions and not the actual grounds of divorce.

Table 69.—Principal causes of divorce in Michigan during the year 1899, showing, by sex, the percentage of complainants from each cause.

Causes alleged.	Number of divorces granted, 1899.			Per cent of total.		
	Total.	To husbands.	To wives.	Total.	To husbands.	To wives.
ALL CAUSES.....	2,218	675	1,543	100.0	100.0	100.0
<i>Adultery</i>	83	60	23	3.7	8.9	1.5
Adultery (sole cause alleged).....	65	50	15	2.9	7.4	1.0
Adultery (with other causes).....	18	10	8	0.8	1.5	0.5
<i>Cruelty</i>	1,101	303	798	49.6	44.9	51.7
Cruelty (sole cause alleged).....	768	252	516	34.6	37.3	33.4
Cruelty (with other causes).....	333	51	282	15.0	7.6	18.3
<i>Desertion</i>	731	326	405	33.0	48.3	26.2
Desertion (sole cause alleged).....	593	255	298	26.7	43.7	19.3
Desertion (with other causes).....	138	31	107	6.2	4.6	6.9
<i>Drunkenness</i>	102	14	88	4.6	2.1	5.7
Drunkenness (sole cause alleged)...	38	7	31	1.7	1.0	2.0
Drunkenness (with other causes)...	64	7	57	2.9	1.0	3.7
<i>Nonsupport</i>	618	10	608	27.9	1.5	39.4
Nonsupport (sole cause alleged)...	291	3	288	13.1	0.4	18.7
Nonsupport (with other causes)...	327	7	320	14.7	1.0	20.7

PART V.—BIRTHS IN MICHIGAN DURING THE YEAR 1899.

The number of births in Michigan during the year 1899, according to the returns received from the county clerks, was only 41,818, a decrease of 1,644 births, as compared with the returns of the preceding year. The birth rate for 1899 was 17.2 per 1,000 estimated population. This rate includes stillbirths and may be compared with the rates given in Table 2, page xxi, from which it appears that it is lower than the birth rate of any previous year of registration in the State. Although the State has increased in population nearly one-half million from 1886 to 1899, the number of births returned is only slightly larger for the latter year.

If these statistics are of any value whatever as indicating the number of children born in the State, it would certainly seem that there has been a considerable decrease in the fecundity of the population.

The rate of living births per 1,000 population is shown in Table 3, page xxii, to be 17.0. This is exclusive of 600 stillbirths returned in births, but for 1899, as for the preceding year, the stillbirths returned in deaths are not compared with nor added to the stillbirths returned in births, as was customary during the years 1874-97, inclusive, when both births and deaths were returned under the same general law.

As will be noted by examination of Table 3, there were 1,394 stillbirths registered in deaths, or 794 more than were returned with births under the old law.

NECESSITY OF AN IMPROVED REGISTRATION LAW FOR BIRTHS.

Within comparatively recent years the collection of vital statistics has been greatly improved in Michigan, and, on the whole, the State is now fully abreast of any other State in the Union in this respect. Beginning with 1887 a stringent marriage license law went into effect whereby a preliminary application was made necessary to the county clerk before any license could be issued for marriage; and no marriage can be lawfully performed in the State without the production of a special license. The result of this law was a great improvement in the accuracy of marriage statistics, in which respect Michigan is the equal of any State, and far in advance of many States that have paid some attention to the registration of vital statistics.

In 1897 the present successful law for the registration of deaths, requiring certificates of death and burial or removal permits before any disposition could be made of the body, was passed, and it has resulted in placing Michigan among the "registration States"—the first State west of New York to be accorded this distinction by the U. S. Census. At the same time a law was passed for the collection of divorce statistics in Michigan, which has already, as explained in the preceding section, given very valu-

able results, although some improvements are yet necessary before absolutely complete returns will be made on this subject.

At no time, however, has a single item of change or improvement been made in the antiquated and worthless law for the enumeration of births by supervisors and assessors. This law was first enacted in 1867 and was amended in 1869, since which no change whatever has been made. Unfortunately the amendment, although it caused the returns to be made for the calendar year, and, therefore, in more convenient form for comparison and study, was a detriment in an important respect, in that it removed the time of enumeration from the close of the year to a period nearly five months subsequent thereto. The old law provided that supervisors and assessors should enumerate all births in the State for the year immediately preceding the date of enumeration. The amended law provided that they should make the enumeration at the same time, namely, from April tenth to May thirtieth of each year, but that the births and deaths recorded should not be those of the year immediately preceding, but of the preceding calendar year. As it is known that with the lapse of every day from the occurrence of the events of birth or death the possibility of securing an accurate record thereof becomes less, it will be seen that the amendment made in 1869 still further increased the difficulty of securing complete statistics of births. This matter, however, is comparatively unimportant, since under the present law it is practically impossible to do so as a necessary consequence of the imperfect method adopted. It has been conclusively proven, and would seem to need no further demonstration, that the method of enumerating vital statistics at the close of the year, and even at the close of the month, leads to many omissions. The only satisfactory method of collecting such data is by requiring their *immediate registration*, as soon as possible after the occurrence of the events. This has been done for deaths by the passage of the law of 1897, which provides, as its most essential requirement, that no body shall be interred or removed from the township, village or city where the death occurs without first filing a certificate of death with the local registrar. In this way, and in no other way, is it possible to secure accuracy and completeness of the statistics. The case is precisely similar for births, although it is obvious that as there is no body to be interred or removed, and no special permission, therefore, is to be given, it is intrinsically more difficult to secure a complete and satisfactory registration of births than of deaths. This theoretical conclusion is fully confirmed by the fact that there is not at the present time in this country a State or city that possesses a thoroughly complete registration of births. It is perhaps doubtful whether a law for this purpose could be enacted in this State at the present time with a sufficient backing of public sentiment to secure its thorough enforcement. Nevertheless, the marked approval with which the registration law for deaths has been received after some five years of administration leads to the belief that public sentiment is becoming more favorable to the more thorough and efficient administration of registration laws, and that people generally are becoming more fully aware of the great advantage which the State and individual citizens receive from such legislation. It is therefore suggested by this Department, although it is not especially urged at the present time, that full legislative consideration be given to the expediency of enacting proper laws for the registration of all births that occur in the State.

A committee of the State Medical Society, under the chairmanship of Dr. Leartus Connor of Detroit, was largely instrumental in securing the passage of the law for the registration of deaths. This committee was appointed also for the purpose of securing improved methods for registering births, and it is believed that their representations may prove of great value in preparing a satisfactory law for this purpose. It is urged, however, that no premature efforts be made to secure the enactment of such a law, but that the time be awaited until it shall be practicable to thoroughly enforce an efficient law. It will be better to wait a short time, even at the cost of continuing the antiquated and practically worthless system, rather than to make an abortive attempt to secure these statistics by means of legislation which cannot be thoroughly enforced in every part of the State.

COUNTY CLERKS DESIRE AN IMPROVED LAW FOR BIRTHS.

As contributing some very important light on the growth of the sentiment throughout the State with regard to the proper registration of births, the following extracts from special reports made by the clerks of the different counties in Michigan to the Secretary of State are presented:

ALCONA COUNTY. George Rutson, County Clerk:—"I think there should be a registrar of births and deaths in each township, whose duty it should be to report each birth and death as they occur. It should be a separate office and the compensation should be at least fifty cents for each birth and death reported."

ALGER COUNTY. Edwin Ninness, County Clerk:—"I would like to see all townships included in registration districts, (as to return of deaths);* also the return of births made monthly by village and township clerks."

ARENAC COUNTY. Roland J. White, County Clerk:—"I think births should be returned by registrars the same as deaths."

CHARLEVOIX COUNTY. Darwin F. Meech, County Clerk:—"Law regarding deaths and births should be enforced as rigidly as marriage license law."

CHEBOYGAN COUNTY. E. N. Gardner, County Clerk:—"Some supervisors are late in reporting births and delay getting my report returned."

CLARE COUNTY. F. M. Morrissey, County Clerk:—"During my incumbency (since January 1, 1897), I think the reports of births and deaths are reported nearly in every case; but in searches for years past, the records fail to show anything in some cases."

DICKINSON COUNTY. R. C. Browning, County Clerk:—"Births should be registered with township and city clerks, with a law making it compulsory for all physicians and midwives to report to the above named officers. Under the present system, a good many of the supervisors rely on their own memory or depend entirely on the record which the physician keeps."

GENESEE COUNTY. Thos. J. Allen, County Clerk:—"Our indexed records of births, deaths and marriages do not go back of 1867. Prior to that time, very uncertain. We think the report of births should be made the same as deaths. As it is, we never have a record satisfactory to any one."

GLADWIN COUNTY. S. S. Townsend, County Clerk:—"Births and deaths are not all recorded simply through carelessness of officials. This office perchance may learn of this. Some supervisors make return of births beginning with time of their election. Find some queer complications along this line. Simply a 'don't care' way of doing their business. How to remedy this I know not."

GOGEIC COUNTY. A. D. Johnston, County Clerk:—"I believe a system of monthly reports required from each officer and from the county clerk to the Secretary of State would tend to give better results."

* This was done by act of the Legislature of 1901.—ED.

HILLSDALE COUNTY. Frank L. Master, County Clerk:—"We think everything is satisfactory, except as to record of births; this record is unreliable, and must necessarily be so under our present law. Supervisors don't begin to get all of the births under the present law. At end of the year they give all births in township they can think of, but, of course, under such conditions, they could not be accurate. We would suggest similar law for reporting and recording births that we have for deaths."

INGHAM COUNTY. F. D. Woodworth, County Clerk:—"I think that the collection of births is conducted in a very loose manner and I think there could or should be some legislation looking to a better method. I think that all births should be reported the same as deaths, and not collected by the various assessors."

IRON COUNTY. John Wall, County Clerk:—"As to births, I think they should be registered in the office of the township or city clerk within thirty days after said birth, and that said township and city clerks make a quarterly report to the county clerk, the county clerk to report annually to the Secretary of State."

ISABELLA COUNTY. Alfred C. Rowladder, County Clerk:—"All births should be reported to the township clerk the same as deaths, and reported by him."

KALKASKA COUNTY. James M. Flagg, County Clerk:—"The registering of deaths and marriages works very well. In regard to births, the supervisors are very careless and indifferent in the matter. No doubt, in my mind, if we had a law for births, something like the one for deaths, it would be more accurate. Take it out of the hands of the supervisor entirely. Do you suppose any supervisor goes to every house when he takes the assessment? Not much!"

KEWEENAW COUNTY. William E. Smith, County Clerk:—"The only thing that occurs to me just now is that we ought to have a change in birth recording, something similar to monthly death reports."

LAKE COUNTY. Ralph H. Hollister, County Clerk:—"It seems to me that the present system of registering marriages and deaths is very good, and of course the records of the court show all divorces. As to births the manner of making the record seems to me to be very imperfect, but I am not prepared to suggest a better one at present."

MARQUETTE COUNTY. William A. Ross, County Clerk:—"The above instances where marriage, birth or death could not be found, were cases where the marriage, birth or death occurred years ago. I should think a similar law for births (as we have for deaths) would be very advantageous for a complete record. As it is now, a birth in April of one year not being reported for a year afterwards, the parents in the meantime may leave the county, consequently there is no record. I have had several inquiries for births where my records did not show them for this very reason."

MIDLAND COUNTY. James V. Lownsbury, County Clerk:—"I believe registrars should report both births and deaths."

MUSKEGON COUNTY. John B. Barlow, County Clerk:—"I can suggest no improvement of the present method of registering marriages and deaths, but think that the law in regard to registering births should be amended so as to require that the report of the birth of the child be made immediately."

NEWAYGO COUNTY. Benjamin Candee, County Clerk:—"I think that the law should be amended in regard to the return of births and make it the duty of the township clerks to make that report, for it is neglected by the supervisors when they are making the assessments."

OTTAWA COUNTY. Chas. K. Hoyt, County Clerk:—"The system in use in marriages, deaths and divorces is all right at present. The system relative to births is not satisfactory, but I am not prepared at this time to offer any suggestions."

SAGINAW COUNTY. R. Crofoot, County Clerk:—"I think births should be registered in the same way as deaths."

ST. CLAIR COUNTY. H. D. Kilets, Deputy County Clerk:—"The majority of the marriages and deaths that are not found took place between the years of '60 and '81. The births not found are of recent dates. Between the years '80 and '90 a number of births are not recorded."

SANILAC COUNTY. James N. Simmons, County Clerk:—"The weakness of our present system is in registering the children born of parents, who move from one county to another, or to other parts of the State. I think a small percentage of such births are ever recorded."

SHIAWASSEE COUNTY. John Y. Martin, County Clerk:—"The system of reporting marriages and deaths seems now to be practically perfect, but in regard to births is very faulty."

* This would do well, except that the births ought to be registered in the local office at once, and that reports should be made directly from the local registrar to the State Department each month.—ED.

WASHTENAW COUNTY. Philip Blum, Jr., County Clerk:—"Births should be reported by the parents to the town clerks, city and village clerks as soon as possible and the various clerks should report to the county clerk on or before the fourth of each month, at the same time they make their death report."

These observations, which were printed in full in the *Michigan Monthly Bulletin of Vital Statistics* for February and March, 1902, were submitted by the county clerks in reply to the following request: "Please add any notes or suggestions that may occur to you relative to the work of registering births, deaths, marriages and divorces." No special attempt was made to obtain their opinions on the subject of births, and the large proportion of replies calling attention to the unsatisfactory condition of such registration may be accepted as spontaneous yet fully competent evidence as to the necessity of the case, and the general public demand for its improvement.

ESSENTIAL REQUIREMENTS OF AN IMPROVED REGISTRATION LAW FOR BIRTHS.

It is perfectly practicable to provide legislation that will fully accomplish the purpose of completely registering all births that occur in the State. Its most essential requirement will be that the physician, midwife, parent, householder or other person having immediate charge of the event shall be required to report it within a very short period of time to the local registrar. It would be desirable that such reporter should receive a small compensation for so doing. The local registrar should receive certificates of births and return them to the Secretary of State monthly at the same time that he makes his returns of deaths. He might also make a transcript to be sent to the county clerk at the end of the quarter, and for all services in connection with such registration, he should receive fairly liberal compensation. Stillbirths should be registered in the same general manner as other births. It is evident that these methods would, in a general way, secure all births in the State, *provided*, physicians, midwives, parents, householders, and others, fully complied with the law in regard to making such reports. Here is where most systems intended to obtain a complete record of births have broken down. It is absolutely necessary that some check shall be had on the accuracy of the returns so that it may be known whether the law is fully complied with or not, and it is suggested that the present system of enumerating be continued, in a somewhat modified and reduced form, merely as a check upon the completeness of the immediate registration of births. In order to accomplish this, it might be required that the clerk of each township, village and city should furnish to the supervisors and assessors a list showing merely the names and dates of births of all children born in their districts during the calendar year, and that supervisors and assessors shall be required to ascertain the name and other particulars in regard to any birth not appearing in this list. Supervisors and assessors should be allowed liberal compensation for each birth found not properly registered, and it should be their duty under the law to enter complaint against the physician, midwife, or other person whose noncompliance therewith had caused the omission of the return, or to report directly to the Secretary of State, who should see that the penalty of the law is enforced. If provision be thus made for the immediate registration of births, under penalty, and also for a check upon *such registration* by an independent enumeration, the total number of

births that occur in the State could probably be obtained within very narrow limits. It is absolutely essential that there be some machinery in the law whereby physicians, midwives and others who do not properly register births shall be prosecuted. There are local ordinances in the State, as for example, in Detroit, under which returns are practically worthless because the law is not fully enforced.

SUMMARY OF THE ENUMERATION OF BIRTHS FOR THE YEAR 1899.

The following statements include the more important features of the enumeration of births in Michigan for the year 1899:

Total number of births returned, 1899.....	41,818
Birth rate per 1,000 estimated population, 1899.....	17.2

Exclusive of stillbirths, there were:

Children born alive, 1899.....	41,218
Children born alive per 1,000 population, 1899.....	17.0

Compared with the previous year, we have:

Decrease of births returned for 1899 (41,818) from the number returned for 1898 (43,462).....	1,644

The following is the distribution of births returned according to sex:

Male children born, 1899.....	21,583
Female children born, 1899.....	20,105
Sex unknown or unspecified (105 of these stillborn).....	130
Males born per 100 births of females.....	107

The parent nativity of children born in 1899, exclusive of births to parents of different nativities, may be stated:

Born of parents both of native birth, 1899.....	18,508
Born of parents both of foreign birth, 1899.....	13,955

Of the 41,818 children born in 1899, according to the returns, there were:

Stillbirths (males, 281; females, 214; unknown, 105).....	600
Stillbirth rate per 1,000 population.....	0.2
Stillbirths per 1,000 living births.....	14.6

Plural births are of interest. Including one set of triplets, there were reported:

Twin children (males, 400; females, 418; unknown sex, 4).....	822

The reported rate of illegitimacy is low for Michigan. In 1899 there were returned:

Illegitimate births (males, 189; females, 194; unknown, 3).....	386
Illegitimate births per 1,000 births, 1899.....	0.2

BIRTHS RETURNED BY MONTHS, 1890-99.

The number of births returned for each month of the calendar year is shown for the last decade in Table 70. As usual, the maximum number occurred in August and the minimum number in January. As the accuracy of registration is very much less during the earlier months in the year, owing to the remoteness of the date of enumeration, which is generally during May of the following year, it is probable that the low birth rate shown for January is purely fictitious. Owing to the imperfections of the statistics, no deductions of any value can be made as to the occurrence of births during the months and seasons of the year.

Table 70.—Births returned, by months, for the years 1890-99 inclusive, with average for the ten-year period. (Stillbirths included.)

Years.	Total for year.	Months.												
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.
1890.....	52,306	4,130	3,718	4,356	4,407	4,568	4,313	4,397	4,651	4,517	4,219	4,223	4,765	42
1891.....	50,812	3,629	3,534	4,345	4,238	4,465	4,078	4,293	4,702	4,646	4,340	4,098	4,391	53
1892.....	46,221	3,226	3,315	3,745	3,928	3,977	3,681	3,929	4,188	4,088	3,918	3,853	4,344	49
1893.....	47,722	3,346	3,391	4,069	3,934	3,924	3,901	4,158	4,351	4,246	4,165	3,916	4,263	58
1894.....	44,596	2,889	3,020	3,854	3,896	3,866	3,735	3,917	3,981	3,778	3,750	3,684	4,204	22
1895.....	46,273	3,204	3,240	3,827	3,742	4,022	3,745	3,989	4,346	4,214	3,997	3,750	4,159	38
1896.....	46,302	3,322	3,184	3,781	3,862	3,918	3,697	3,879	4,405	4,208	3,994	3,842	4,155	55
1897.....	43,688	3,295	3,207	3,777	3,654	3,794	3,423	3,739	3,863	3,853	3,717	3,571	3,767	28
1898.....	43,462	3,043	3,173	3,856	3,534	3,724	3,554	3,612	3,894	3,807	3,801	3,492	3,920	52
1899.....	41,818	3,099	3,134	3,681	3,652	3,494	3,199	3,633	3,785	3,758	3,454	3,262	3,636	31
Average, 1890-99	46,320	3,318	3,292	3,929	3,885	3,975	3,733	3,955	4,215	4,112	3,936	3,760	4,160	43

NATIVITY OF PARENTS OF CHILDREN BORN IN MICHIGAN DURING 1899.

The distribution of parent nativity of children born during the year may be seen in Table 71. Nearly one-half of all the children born (44.3 per cent) had parents both of native birth. A little over one-third of the children born during the year (33.4 per cent) had parents both of foreign birth, while the remainder was of mixed or unknown parent nativity. Of the total number of children born, according to reports from the county clerks, 26,979 or 64.5 per cent had parents one or both of native birth, and 22,248 or 53.2 per cent had parents one or both foreign born.

Table 71.—Parent nativity of children born in Michigan, during the year 1899. (Stillbirths included.)

Nativity of parents of children born, 1899.	Number of births, 1899.				Per cent of total.			
	Total.	Males.	Females.	Un-known.	Total.	Males.	Females.	Un-known.
All nativities.....	41,818	21,583	20,105	130	100.0	100.0	100.0	100.0
Both parents native born.....	18,508	9,644	8,837	27	44.3	44.7	44.0	20.8
Both parents foreign born.....	13,955	7,198	6,741	16	33.4	33.4	33.5	12.3
Foreign father and native mother..	5,024	2,540	2,476	8	12.0	11.8	12.3	6.2
Foreign mother and native father..	3,116	1,612	1,504	.....	7.5	7.5	7.5	.....
Unknown mother, father native....	119	62	57	.....	0.3	0.3	0.3	.....
Unknown mother, father foreign...	77	44	33	.....	0.2	0.2	0.2	.....
Unknown father, mother native....	212	100	107	5	0.5	0.5	0.5	3.8
Unknown father, mother foreign...	76	38	34	4	0.2	0.2	0.2	3.1
Both unknown.....	731	345	316	70	1.7	1.6	1.6	53.8
One or both native.....	26,979	13,958	12,981	40	64.5	64.7	64.6	30.8
One or both foreign.....	22,248	11,432	10,788	28	53.2	53.0	53.7	21.5

Table 72.—Parent nativity of children born in Michigan for each of the years 1890-99, inclusive; with average for the ten-year period. (Stillbirths included.)

Years.	Nativity of parents of children,—per cent of total.										
	Both native born.	Both foreign born.	Foreign father and native mother.	Foreign mother and native father.	One of both unknown.	Father—			Mother—		
						Native.	Foreign.	Unknown.	Native.	Foreign.	Unknown.
1890.....	41.8	38.4	10.8	6.0	3.0	48.3	49.5	2.2	53.1	44.6	2.3
1891.....	40.2	39.8	10.8	6.1	3.1	46.9	51.0	2.1	51.3	46.2	2.5
1892.....	39.7	39.7	10.9	6.3	3.3	46.7	51.0	2.3	51.3	46.2	2.5
1893.....	41.1	38.5	11.0	6.6	2.9	48.0	50.0	2.1	52.6	45.3	2.1
1894.....	43.0	35.6	11.4	6.8	3.3	50.4	47.9	1.7	54.9	42.5	2.6
1895.....	42.4	35.5	11.3	6.8	3.0	50.7	47.0	2.2	55.3	42.5	2.2
1896.....	43.0	35.5	11.8	6.8	3.0	50.0	47.5	2.5	55.3	42.5	2.3
1897.....	43.6	34.3	11.7	7.2	3.0	51.2	46.2	2.6	55.9	41.8	2.4
1898.....	44.8	32.9	12.0	7.3	3.0	52.4	45.2	2.4	57.5	40.6	2.0
1899.....	44.3	33.4	12.0	7.5	2.9	52.0	45.6	2.4	56.8	41.0	2.2
Average, 1890-99....	42.5	36.4	11.4	6.7	3.1	49.7	48.1	2.3	54.4	43.3	2.3

* Including cases where nativity of either parent is unknown.

Table 73.—Parent nativity of children born in Michigan during the year 1899, compared with averages for five quinquennial periods, 1871-95. (Stillbirths included.)

Years and periods averaged.	Nativity of parents,—per cent of total.				
	Both native born.	Both foreign born.	Foreign father and native mother.	Native father and foreign mother.	One or both unknown.
Average, 1871-75.....	44.8	34.3	9.5	5.2	6.2
Average, 1876-80.....	46.0	34.1	11.0	5.7	3.1
Average, 1881-85.....	43.7	35.5	11.5	6.2	2.9
Average, 1886-90.....	42.7	37.6	10.7	6.2	2.8
Average, 1891-95.....	41.5	37.8	11.1	6.5	3.1
Year 1896.....	43.0	35.5	11.8	6.8	3.0
Year 1897.....	43.6	34.3	11.7	7.2	3.0
Year 1898.....	44.8	32.9	12.0	7.3	3.0
Year 1899.....	44.3	33.4	12.0	7.5	2.9

Comparisons of the figures given in Table 71 for the year 1899 may be made with preceding years and periods of registration by means of Tables 72 and 73. It appears that the percentage of children having both parents native born is slightly less than that for the preceding year. This ratio shows a slight tendency to increase during recent years of registration,

although it is not yet as high as it was during the early five-year period, 1871-75. The percentage of children both of foreign birth shows some decrease as compared with recent years. Such ratios, however, as are given in these tables (Tables 71, 72 and 73) are not very satisfactory in any respect. The only proper comparisons of parent nativity are those made with the constituent population, and even then the individual nationalities should be taken, with their different age-distributions and statements of civil condition, before any definite and precise results can be obtained. Census data are not available for this purpose, and even if they were the statistics of births are so imperfect in themselves, that it seems hardly worth while to give very much consideration to these figures, although for some purposes the gross distribution of parent nativity may be of interest.

DECADENCE OF THE NATIVE POPULATION.

A special study of the statistics relating to the increase of the population of the State, with regard to the proportional numbers of children born to women of native and foreign birth and the fecundity of marriage, by nativity, was published in the Michigan Annual Registration Report for the year 1894. It was there stated that "The decline in the fruitfulness of the population of Michigan, and especially the low rates of fecundity of marriage and fertility of women of child-bearing age, should arrest the attention of the inhabitants of the State, and more especially that of the native born population, whose capability of self-maintenance, not to speak of a reasonable natural increase, seems to be seriously in question." The figures, which were obtained with much difficulty and after making allowance to as great an extent as could be safely done for imperfect returns, may be given in condensed form as quoted by Dr. Arthur Newsholme in his "Elements of Vital Statistics," third edition, p. 65:

The fecundity of marriage of native born and foreign born women in Michigan, 1870-94, in five-year periods, approximate corrections having been made for imperfect returns.

Five-year periods.	Children born per 1,000 women between 15 and 45 years of age, with mother—		Children born per marriage, with mother—	
	Native.	Foreign.	Native.	Foreign.
1870-74.....	124	231		
1875-79.....	127	235	3.6	6.5
1880-84.....	122	221	3.3	6.5
1885-89.....	117	227	3.0	4.9
1890-94.....	111	232	3.0	5.1

These results, although of a very striking character, would probably not have been regarded by the writer as sufficiently reliable to base important conclusions upon, owing to the very imperfect statistics of births involved, had they not been most strongly confirmed by the entirely independent data resulting from the Michigan State Census of 1894. The *Census* asked the definite question as a part of its enumeration of popula-

tion: "Mother of how many children, and of these how many children living?" The most important results are shown by the following table:

Mothers and children in Michigan, State Census, 1894.

Constitution of family, Michigan, June 1, 1894.	Number of mothers.	Number of children born to mothers.	Average number of children to each mother.
Native mothers, native husbands.....	185,229	638,892	3.4
Foreign mothers, foreign husbands.....	118,200	636,332	5.4
Native mothers, foreign husbands.....	40,318	160,208	4.0
Foreign mothers, native husbands.....	25,693	98,529	3.8
Total native mothers.....	266,853	974,351	3.7
Total foreign mothers.....	171,158	893,511	5.2

Again, we find a second line of confirmatory evidence afforded by the State Census, entirely independent both of the foregoing data and of the statistics derived from the registration records of births. The Census enumerated births in Michigan during the Census year, and, in addition to the usual information, ascertained the number of the child of each mother who bore a child during the Census year. The general result of the analysis was that for 57,467 women who bore children during the Census year, 32,996 of native and 24,471 of foreign birth, with totals of 106,384 and 106,910 children for each class, respectively, the average number of children by native mothers was 3.22 and of foreign mothers was 4.37. These ratios are quite analogous to the ones shown in the preceding table, 3.7 and 5.2, except that, as based on the latest year of observation, they fall below the averages for the longer period. This accords with the theory of a steadily decreasing fecundity. Both sets of data derived from the Census fully agree with the indications worked out purely from registration returns, and bear strong testimony to their validity.

These figures are, therefore, something more than merely conjectural, and their significance should be great to the thoughtful American citizen. He may read the lesson written plainly on the wall, or he may ignore it. He may or may not be able to ameliorate the conditions which have brought it to pass, but he should not, at least, either hide from himself the facts in the case, or scoff at their importance. Plainly stated, if the ratio of births to the average American family is three or less, then the average American family is a vanishing quantity. This number of births will not even support a stationary population, and as in France, which has reached the limit of three children per marriage, the population may actually decrease were it not for immigration from more vigorous stocks.

This reference to the data contained in a former registration report, and which we may never be able to continue in a satisfactory manner owing to the debasement of the Michigan marriage statistics beginning with 1899 (See Part III of this Report), will, perhaps, be of interest in view of the attention that has lately been given to this subject. In the *Quarterly Journal of Economics* published for Harvard University,

January and February, 1902, Dr. R. R. Kuczynski has given a most thorough analysis of the statistics of Massachusetts with reference to this question. One of his conclusions is: "It is probable that the native population cannot hold its own. It seems to be dying out." And Dr. George J. Engelmann, former president of the American Obstetrical Association, in a paper which attracted great attention at the fifty-second annual session of the American Medical Association held at Minneapolis in 1901, states that "at the present time 20 per cent and over of married women are childless, whilst in the preceding centuries, in the earlier days of the country, only 2 per cent were sterile," while the results of similar investigations, including that of the writer, "corroborate my results in every detail and confirm the high sterility and low fecundity in the United States, conditions worse than in any European country save France, and for the native American population worse than that of France."

There may be in some quarters a reversion to more primitive and healthy instincts than at present seem to control the growth of the race. A hopeful sign may be found in such utterances as the following, quoted from the works of a writer who stands, to a great degree, as the exponent of true and manly Americanism:

In the last analysis a healthy state can exist only when the men and women who make it up lead clean, vigorous, healthy lives; when the children are so trained that they shall endeavor, not to shirk difficulties, but to overcome them; not to seek ease, but to know how to wrest triumph from toil and risk. The man must be glad to do a man's work, to dare and endure and to labor; to keep himself and to keep those dependent upon him. The woman must be the housewife, the helpmeet of the homemaker, the wise and fearless mother of many healthy children. In one of Daudet's powerful and melancholy books he speaks of the "fear of maternity, the haunting terror of the young wife of the present day." When such words can be truthfully written of a nation, that nation is rotten to the heart's core. When men fear work or fear righteous war, when women fear motherhood, they tremble on the brink of doom; and well it is that they should vanish from the earth, where they are fit subjects for the scorn of all men and women who are themselves strong and brave and high-minded.—Theodore Roosevelt.

CLIMATOLOGICAL DATA FOR MICHIGAN, 1899.

The following data relating to the meteorological conditions in Michigan for the year 1899 have been kindly supplied to this Department by Mr. C. F. Schneider, Director of the Michigan State Weather Service in co-operation with the Climate and Crop Service of the Weather Bureau, U. S. Department of Agriculture. Fuller details may be found in the annual report of the State Weather Service for the year, but the data herewith presented will be found convenient for comparing with the mortality statistics contained in this report.

In connection with the text and tables on this subject, two maps are presented, reduced from those which appeared in the publication of the Weather Service, and showing the annual mean isotherms and prevailing winds (Map I) and the amount of precipitation in various parts of the State (Map II). It will be observed that the very important data contained in Table 75 are arranged according to the same geographical sections employed in the study of causes of death, (Table 18, p. lxvi), thus making the comparison of mortality statistics and meteorological data very convenient.

In Table 74 the temperature and amount of precipitation for the year are compared with the years 1888-98, both inclusive, this period extending back to the formation of the State Weather Service. The average of the statistics for these years constitutes the "normal" which is used as a basis of reference in making comparisons of the meteorology of the current year.

REVIEW OF THE YEAR 1899.

Annual Temperature.—The annual mean temperature for 1899 for Michigan was 44.9 degrees, or 0.3 degrees *below* the normal, which is computed by averaging the yearly mean temperatures of the 11 preceding years. February was comparatively the coldest month of the year, and also the coldest February on record, its mean being 14.1 degrees, or 6.9 below the normal. September was also a comparatively cold stormy month, its mean being 56.9 degrees, or 3.4 below the normal. On the other hand April, August, October and November, were, by comparison with like months of preceding years, very warm months; the three last named months were record breakers, being warmer than any month of August, October or November of preceding years of which there is record.

The excessive cold in February did extensive damage to fruit trees, killing about 40 per cent of the peach trees and reducing the 1899 peach crop to less than 25 per cent of an average crop.

In August the lack of precipitation, combined with high temperatures and nearly cloudless skies, almost ruined the corn crop, which up to August 1st had made exceptionally fine progress.

Almost the entire month of November was dry, hazy and balmy, resembling the conditions which usually prevail in Michigan during the latter part of September and most of October.

The highest temperature of the year, 100 degrees, occurred at Battle Creek on the 24th of July, and also at Owosso on August 19th and 20th. The lowest temperature, —49 degrees, occurred at Humboldt, Marquette county, on February 7th.

MAP I.—ANNUAL MEAN ISOTHERMS AND PREVAILING WINDS IN MICHIGAN, 1899.



Annual Precipitation.—The annual mean total precipitation was 28.99 inches, or 1.81 inches below the normal, and 3.30 inches less than what fell in 1898. The greatest monthly average, 3.72 inches, occurred in May; the least monthly amount, 1.20 inches, occurred in November. Altogether there was an excess during March, May, July, September, October and December, and a deficiency during the other six months. Droughty conditions prevailing during August and portions of October and November.

METEROLOGICAL CONDITIONS BY MONTHS, 1899.

January.—The mean temperature was 19.1 degrees, or 1.3 degrees below the normal. The highest temperature was 56 degrees at Allegan on the 4th; the lowest was —41 at Iron River on the 31st.

The average total precipitation was 1.79 inches, or 0.57 of an inch below the normal. The greatest monthly precipitation, 3.31 inches, occurred at Thornville; the least monthly, 0.35 of an inch, occurred at Rogers City.

MAP II.—TOTAL PRECIPITATION IN MICHIGAN, 1899.



February.—The mean temperature was 14.1 degrees, or 6.9 degrees below the normal. The highest temperature was 62 degrees on the 26th at Clinton and Grape; the lowest was —49 degrees on the 7th at Humboldt.

The average total precipitation was 1.44 inches, or 0.43 on an inch below the normal. The greatest monthly precipitation, 3.18 inches, occurred at Olivet; the least, 0.39 of an inch, at Traverse City.

The month was remarkable for excessive cold, it being the coldest on record. Lake Michigan almost completely froze over on the 15th. Much fruit was destroyed and considerable game, especially quail, partridge and ducks, perished on account of the extreme cold.

March.—The mean temperature was 23.6 degrees, or 4.9 degrees below the normal. The highest temperature was 68 degrees at Mt. Clemens on the 11th; the lowest was —21 degrees at Sidnaw on the 11th, at Wetmore on the 16th, and at Lathrop on the 17th.

The average total precipitation was 3.29 inches, or 1.24 inches above the normal. The greatest monthly precipitation, 6.72 inches occurred at Berrien Springs; the least amount, 1.08 inches, occurred at Calumet.

The average total snowfall, 22.5 inches, is 9.8 inches greater than the snowfall for any previous March of which there is record. The average March snowfall is 7.1 inches; during the eleven years immediately preceding this, the average total March snowfall has never been greater than 12.7 inches.

April.—The mean temperature was 46.7 degrees, or 3.4 degrees above the normal. The highest temperature was 94 degrees at Camden, Hillsdale county, on the 21st and 28th; the lowest was —8 degrees on the 4th at Humboldt, Marquette county.

The average total precipitation was 1.28 inches, or 1.18 inches below the normal. The greatest monthly precipitation, 4.63 inches, occurred at Iron Mountain, Dickinson county; at Hayes, Huron county, there was an entire absence of precipitation and a number of stations in the southern section have monthly amounts of less than 0.25 of an inch.

May.—The mean temperature was 56.3 degrees, or 1.9 degrees above the normal. The highest temperature was 91 degrees at Clinton, Lenawee county, on the 2d; the lowest was 18 degrees at Grayling, Crawford county, on the 14th.

The average total precipitation was 3.72 inches, or 0.31 of an inch, above the normal. The greatest monthly precipitation, 7.52 inches, occurred at Calumet, Houghton county; the least monthly precipitation, 1.05 inches, occurred at East Tawas, Iosco county.

June.—The mean temperature was 65.9 degrees, or 0.7 of a degree above the normal. The highest temperature was 98 degrees on the 4th at Port Austin, and on the 7th at Coldwater; the lowest was 22 degrees at Newberry on the 28th.

The average total precipitation was 2.96 inches, or 0.33 of an inch below the normal. The greatest monthly precipitation, 6.80 inches, occurred at Calumet; the least monthly precipitation, 0.82 of an inch occurred at Ionia.

July.—The mean temperature was 68.4 degrees, or 1.2 degrees below the normal. The highest temperature was 100 degrees at Battle Creek on the 24th; the lowest temperature was 30 degrees at Rockland on the 31st.

The average total precipitation was 3.62 inches, or 1.12 inches above the normal. The greatest monthly precipitation, 10.62 inches, occurred at Big Rapids; the least monthly amount, 0.80 of an inch, occurred at Newberry.

August.—The mean temperature was 69.1 degrees, or 2.7 degrees above the normal. The highest temperature was 100 degrees at Owosso, on the 19th and 20th; the lowest temperature was 30 degrees at Humboldt on the

7th, at Wetmore on the 13th and at Newberry on the 23d, at Mancelona on the 23d and at Luzerne on the 15th.

The average total precipitation was 1.25 inches, or 1.55 inches below the normal. The greatest monthly precipitation, 5.88 inches, occurred at Humboldt; no precipitation occurred at Allegan and only a trace at Port Austin, Hayes, Carsonville and Ovid.

September.—The mean temperature was 56.9 degrees, or 3.4 degrees below the normal. The highest temperature was 99 degrees on the 7th at Berrien Springs, and Mottville; the lowest temperature was 16 degrees on the 13th at Thomaston.

The average total precipitation was 3.06 inches, or 0.18 of an inch above the normal. The greatest monthly precipitation, 5.83 inches, occurred at Wetmore; the least monthly amount, 1.25 inches, occurred at Howell Junction.

October.—The mean temperature was 52.3 degrees, or 4.6 degrees above the normal. The highest temperature was 88 degrees on the 15th at Berrien Springs; the lowest temperature was 11 degrees on the 1st at Mancelona.

The average total precipitation was 2.95 inches, or 0.25 of an inch above the normal. The greatest monthly precipitation, 5.25 inches, occurred at Vassar; the least monthly amount, 0.81 of an inch, occurred at Ludington.

The month is distinguished by the two features of a high mean temperature and a small amount of snowfall; it is the warmest October of which this office has record (back to and including October, 1887). The snowfall was comparatively light in all parts of the State, especially over the Upper Peninsula, where an average of over 4 inches usually occurs during October, while this year there was only a trace.

November.—The mean temperature was 40.6 degrees, or 5.5 degrees above the normal. The highest temperature was 68 degrees at St. Ignace on the 6th, and at Grand Rapids on the 7th; the lowest temperature was 11 degrees on the 3d at Iron River.

The average total precipitation was 1.20 inches, or 1.62 inches below the normal. The greatest monthly precipitation, 2.75 inches, occurred at Ball Mountain; the least monthly amount, 0.02 of an inch, occurred at Baraga.

December.—The mean temperature was 26.1 degrees, or identical to the normal. The highest temperature was 64 degrees at Reed City on the 12th, and at Allegan on the 11th; the lowest temperature was —26 degrees at Iron River on the 30th.

The total precipitation was 2.40 inches, or 0.27 of an inch above the normal. The greatest monthly precipitation, 5.39 inches, occurred at Vandalia; the least monthly amount, 0.14 of an inch, occurred at Menominee.

Table 74.—Temperature and amount of precipitation in Michigan during the year 1899, compared with previous years.

Year.	Temperature.					Average yearly precipitation (inches).	Average total snowfall (inches).
	Yearly mean.	Highest.	Date.	Lowest.	Date.		
1888.....	43.8	102	June 17.....	—36	{ Jan. 21..... }	28.68	67.9
1889.....	45.3	102	July 8.....	—33	{ Feb. 9..... }	26.86	57.7
1890.....	45.6	104	Aug. 3.....	—35	Mar. 6.....	34.23	44.6
1891.....	46.2	103	Aug. 8.....	—28	Feb. 4.....	30.65	42.8
1892.....	44.6	101	July 26.....	—26	Jan. 20.....	33.69	50.1
1893.....	43.6	100	{ June 26..... }				
			{ July 13..... }	—31	Jan. 15.....	34.55	81.2
			{ Aug. 10..... }				
1894.....	46.8	102	July 27.....	—31	Feb. 24.....	28.00	45.2
1895.....	44.6	101	July 7.....	—38	Feb. 6.....	26.90	71.4
1896.....	45.8	100	June 6.....	—29	Feb. 17.....	31.74	42.8
1897.....	44.9	104	July 19.....	—43	Feb. 26.....	31.23	57.0
1898.....	46.0	101	{ July 24..... }	—35	Dec. 31.....	32.29	61.5
			{ Aug. 23..... }				
Normal..	45.2	102	July 18.....	—33	Feb. 6.....	30.80	56.6
1899.....	44.9	100	{ July 24..... }	—49	Feb. 7.....	28.99	48.8
			{ Aug. 19-20..... }				

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and sex, during the year 1899. (Stillbirths included.)

Ages in five-year periods.

Under 5 years.†	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 and over.	UNE.
8,848	846	658	1,030	1,313	1,206	1,079	1,152	1,145	1,141	1,223	1,513	1,693	2,079	2,272	2,155	2,852	84
4,982	438	347	534	624	525	465	569	558	646	668	842	908	1,115	1,267	1,220	1,470	62
3,860	408	311	496	689	681	614	583	587	495	555	671	785	964	1,005	935	1,382	22
6																	
11	2	1	1	2	2	1	1	1	2	3	2	2	2	4	1	1	..
7	2	1	1	2	2	1	1	1	2	2	2	2	2	3	3	1	..
4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	..
20	4	1	2	2	2	2	1	1	2	2	1	1	1	1	1	1	..
12	2	1	2	2	2	2	1	1	2	1	1	1	1	1	1	1	..
8	2	1	2	2	2	2	1	1	2	1	1	1	1	1	1	1	..
111	11	13	14	23	21	16	14	17	22	17	35	28	32	56	53	81	..
65	6	9	6	10	10	5	4	6	11	11	11	19	20	29	26	50	..
46	5	4	8	13	11	11	10	11	11	6	24	9	12	27	27	31	..
76	8	6	11	13	4	3	14	13	10	10	4	9	6	9	10	17	..
48	4	6	3	8	1	7	7	9	8	6	3	5	3	3	6	10	..
28	4	8	8	8	4	2	7	4	2	4	1	4	3	6	4	7	..
89	6	3	11	13	6	6	10	3	8	8	13	10	13	9	9	10	1
53	3	2	5	7	3	3	4	1	5	6	5	6	6	7	3	7	1
36	3	1	6	6	3	3	6	2	3	2	8	4	7	2	6	3	..
44	5	2	5	5	2	2	3	8	4	3	6	4	8	6	4	9	1
23	2	2	3	3	2	2	3	2	2	2	3	4	4	4	3	8	1
21	5	2	2	2	2	2	6	2	2	1	3	4	4	2	1	1	..
18	3	3	1	2	2	4	3	6	1	3	2	3	2	3	1	1	1
8	2	1	1	1	1	2	3	3	2	2	2	2	2	3	1	1	1
10	1	2	1	1	1	2	3	3	1	1	1	1	1	1	1	1	..
55	2	4	3	14	5	6	9	9	7	6	22	13	21	36	37	40	3
31	3	3	1	8	2	3	4	4	3	5	12	7	10	26	21	25	3
24	2	1	2	6	3	3	5	5	4	1	10	6	11	10	16	15	..
254	29	18	36	29	36	25	33	20	29	24	24	35	41	50	32	43	2
152	19	7	19	11	18	9	17	9	17	12	18	16	25	35	19	21	1
102	10	11	17	18	18	16	16	11	12	12	6	19	16	15	13	22	1
50	5	4	8	11	2	5	5	5	3	4	4	4	5	5	4	7	..
27	4	2	4	8	3	1	4	2	1	1	2	1	4	4	3	3	..
23	1	2	4	3	2	2	4	1	1	3	2	3	1	1	1	4	..
136	17	12	15	21	20	25	23	11	19	25	31	42	53	60	48	73	..
77	10	5	6	5	5	8	17	3	8	14	16	20	27	41	27	36	..
59	7	7	9	16	15	17	6	8	11	11	15	22	26	19	21	37	..
56	5	6	7	11	13	13	6	15	18	15	24	35	26	37	50	50	1
36	3	3	4	5	3	6	4	9	9	6	11	15	11	15	26	19	..
20	2	3	3	6	10	7	2	6	9	9	13	20	15	22	24	31	1
118	15	17	28	33	21	21	17	34	19	31	41	43	70	72	73	96	2
73	11	10	16	14	9	8	10	21	9	14	23	14	38	42	39	49	2
45	4	7	12	19	12	13	7	13	10	17	18	29	32	30	34	47	..
48	6	5	7	4	9	12	8	10	12	9	18	20	24	30	22	47	1
33	3	5	5	1	2	5	2	3	5	5	14	10	16	17	14	23	1
15	3	2	2	3	7	7	6	7	7	4	4	10	8	13	8	24	..
44	1	3	5	8	5	7	7	8	2	6	3	9	8	4	9	18	3
26	1	3	2	3	3	1	1	4	1	3	2	6	5	2	6	13	1
18	3	3	3	3	2	6	6	4	1	3	1	3	3	2	3	5	2

† Stillbirths not included.

Table 75.—Concluded.—Temperature, precipitation, sky and direction of wind.

Year and months by geographical sections.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				Sky.			Prevailing direction of the wind.	
	Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (un- melted).	Number of days with precipitation.	Number clear days.		Number partly cloudy days.
Year, 1899—III. CENTRAL CO'S....	45.6	—0.3	98	June 4	—36	Feb. 11	56 2.30	—0.16	3.80	39.2	6	11	10	9	s w
January.....	20.8	—2.1	53	4	—23	31	36 1.62	—1.45	1.02	6.0	8	8	8	15	s w
February.....	15.3	—6.5	57	26	—36	11	44 1.30	—0.64	1.25	2.8	4	9	9	10	s w
March.....	24.5	—5.9	60	11	—5	31	42 3.47	+1.11	2.00	26.3	10	6	8	17	n w
April.....	46.8	+2.9	90	29-30	—2	1	46 0.96	—1.53	0.90	T	5	12	14	4	s w
May.....	56.9	+1.0	89	2	30	14-20-21	48 3.35	+0.36	1.71	0	8	11	10	10	s w
June.....	66.7	+0.6	98	4	32	29	43 2.04	—0.70	2.25	0	4	16	11	3	s w
July.....	68.4	—2.1	96	23-24	40	31	42 5.13	+3.51	3.80	0	9	15	10	6	s w
August.....	69.2	+2.4	97	19-20	36	16	51 0.32	—2.24	0.92	0	1	20	9	2	s w
September.....	57.4	—3.8	95	7	21	29	54 3.27	+0.55	2.80	0.1	6	9	13	8	n w
October.....	52.5	+4.1	86	15	18	1-2	56 3.10	+0.33	2.00	0	6	14	10	7	s
November.....	41.1	+5.2	67	7	19	5-6	42 1.21	—1.33	1.58	0.2	6	8	9	13	s w-w
December.....	27.5	+0.9	62	3	—15	30	36 1.88	+0.16	1.40	3.8	8	7	8	16	n w
Year, 1899—IV. SOUTHERN CO'S....	47.8	+0.4	100	July 24 Aug. 19-20	—43	Feb. 12	58 2.41	—0.25	3.00	42.0	8	11	9	10	s w
January.....	22.7	—0.6	56	4	—23	31	41 2.05	—0.17	1.27	4.1	8	8	9	14	s w
February.....	17.7	—6.7	62	26	—43	12	46 1.81	—0.30	1.66	4.0	7	9	8	11	s w
March.....	28.5	—3.7	68	11	—8	7	43 3.71	+1.51	1.22	22.5	12	5	8	18	n w
April.....	50.2	+4.0	94	21-28	7	3	57 0.85	—1.54	1.80	0.2	6	14	9	7	s-w
May.....	59.5	+2.4	91	2	26	8	47 4.11	+0.37	2.00	0	12	10	11	10	s w
June.....	68.8	+1.0	98	7	35	17	52 2.22	—1.24	3.00	0	6	16	10	4	s w
July.....	71.0	—0.5	100	24	40	31	48 2.98	+0.34	2.00	0	8	14	9	8	s w
August.....	71.5	+2.9	100	19-20	34	15	53 0.82	—1.68	2.70	0	3	19	8	4	s e
September.....	59.5	—3.1	99	7	21	30	58 3.06	+0.24	2.40	T	9	9	11	10	n w
October.....	54.6	+5.1	88	15	16	1	46 3.10	+0.90	2.20	0	7	15	8	8	s w
November.....	41.3	+4.6	68	7	20	6-7	39 1.76	—1.29	1.20	1.9	6	8	9	13	s w
December.....	27.7	—0.5	64	11	—10	30	47 2.46	+0.11	1.89	9.3	11	7	7	17	w

Table 76.—Relative humidity, wind movement and atmospheric pressure in Michigan during the year 1899.

Year and months, 1899.	Mean relative humid- ity (per cent).	Wind movement (in miles).			Atmospheric pressure reduced to 32° and sea level.					
		Average total move- ment.	Average hourly veloc- ity.	Highest velocity with direction from and date.	Mean.	Highest.	Date.	Lowest.	Date.	Absolute range.
Year, 1899....	81	7,000	9.6	52-s w-Dec.12	30.02	30.79	Jan.10	29.07	Dec.12	1.72
January.....	86	8,647	11.6	50-s w-26	30.05	30.79	10	29.10	26	1.69
February....	86	6,381	9.5	46-s-26	30.04	30.72	11	29.26	19	1.46
March.....	80	8,194	11.0	44-n w-23	29.99	30.52	14	29.32	5	1.20
April.....	77	6,656	9.3	44-s-27	30.02	30.44	5	29.34	13	1.10
May.....	75	7,306	9.8	44-n w-13	30.01	30.40	23	29.36	31	1.04
June.....	73	6,671	9.3	49-s w-6	30.00	30.36	29	29.51	4	0.85
July.....	76	5,727	7.7	37-n-8 37-n w-30	29.95	30.21	1	29.04	20	0.57
August.....	76	5,718	7.7	37-n w-30	29.97	30.28	15	29.46	20	0.82
September....	80	6,876	7.7	37-n w-30	30.00	30.43	30	29.44	28	0.99
October.....	82	6,672	7.7	37-n w-30	30.00	30.59	2	29.60	9	0.99
November....	85	6,100	7.7	37-n w-30	30.00	30.72	2	29.35	29	1.17
December....	85	9,100	7.7	37-n w-30	30.00	30.72	18	29.07	12	1.53

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counties and sex, during the year 1899. (Stillbirths included.)

Ages in five-year periods.

Under 5 years.†	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 and over.	Unk.
72	10	3	9	7	3	9	5	5	14	3	8	2	7	6	9	10	2
37	7	3	6	2	2	2	1	3	8	3	5	1	4	5	5	6	2
35	3	...	3	5	1	7	4	2	6	...	3	1	3	1	4	4	..
94	10	4	8	21	12	7	16	11	9	7	12	7	4	5	6	9	3
52	6	2	6	14	5	4	8	7	7	5	8	2	3	4	4	4	3
42	4	2	2	7	7	3	8	4	2	2	4	5	1	1	2	5	..
38	1	2	3	1	3	1	3	7	4	3	7	2	2	4	4	6	..
24	1	2	...	1	1	1	2	2	2	2	5	1	1	3	2	3	..
14	...	...	3	...	2	...	1	5	2	1	2	1	1	1	2	3	..
60	4	5	17	7	5	5	10	4	11	12	21	25	32	38	35	43	..
39	3	2	3	3	3	1	5	1	6	6	14	12	15	15	18	21	..
21	1	3	14	4	2	4	5	3	5	6	7	13	17	23	17	22	..
7	2	...	...	...	...	1	...	3	2	1	...	2	1	3	...	2	..
3	1	...	...	...	...	...	...	1	1	...	...	2	...	...	...	2	..
4	1	...	...	...	...	1	...	2	1	1	...	...	1	3	...	...	..
100	8	6	10	20	19	12	18	17	14	16	4	7	13	6	5	9	1
53	4	5	3	8	14	6	13	11	12	12	3	5	5	2	4	5	1
47	4	1	7	12	5	6	5	6	2	4	1	2	8	4	1	4	..
120	4	5	7	8	9	6	15	13	2	6	3	4	7	5	3	3	..
64	2	3	3	6	6	4	8	8	1	5	3	1	7	2	1	3	..
56	2	2	4	2	3	2	7	5	1	1	...	3	...	3	2	...	..
73	4	6	8	13	14	14	12	8	9	20	25	37	36	46	40	68	..
35	2	2	2	3	8	6	5	3	3	11	11	15	17	27	17	38	..
38	2	4	6	10	6	8	7	5	6	9	14	22	19	19	23	30	..
52	8	2	7	7	6	6	6	4	3	5	9	8	14	8	8	10	..
36	4	1	4	2	3	1	3	2	1	2	6	5	6	4	5	5	..
16	4	1	3	5	3	5	3	2	2	3	3	3	8	4	3	5	..
90	11	13	19	21	13	16	13	16	23	26	37	37	34	47	59	72	4
53	7	8	13	14	4	6	7	9	13	11	18	20	15	27	33	38	2
37	4	5	6	7	9	10	6	7	10	15	19	17	19	20	26	34	2
18	1	1	...	2	2	2	...	4	...	3	...	1	3	2	1	2	1
12	1	1	...	...	2	1	...	3	...	1	...	...	3	2	1	1	1
6	...	...	...	2	...	1	...	1	...	2	...	1	...	...	...	1	...
98	8	1	6	8	11	9	14	10	10	5	4	7	3	4	1	...	..
63	2	1	4	6	8	6	8	6	5	5	3	4	1	1	...	...	..
35	6	...	2	2	3	3	6	4	5	...	1	3	2	2	...	...	..
69	8	4	13	10	18	12	15	14	8	19	15	16	23	23	16	18	..
33	4	3	6	5	6	5	5	9	6	9	6	6	13	14	11	10	..
36	4	1	7	5	12	7	10	5	2	10	9	10	10	9	5	8	..
104	6	14	12	19	11	12	11	12	9	14	20	32	26	29	35	37	1
54	3	8	5	9	4	2	4	4	3	9	12	15	13	19	18	16	1
50	3	6	7	10	7	10	7	8	6	5	8	17	13	10	21	...	..
72	5	3	13	11	8	14	15	14	10	14	22	33	39	42	60	69	..
40	3	2	7	6	5	5	9	5	3	8	7	17	23	18	29	40	..
32	2	1	6	5	3	9	6	9	7	6	15	16	16	24	31	29	..
429	65	43	28	51	50	42	45	35	24	23	24	18	25	21	20	10	5
270	32	21	21	29	35	33	21	18	11	17	15	12	18	12	12	6	4
159	33	22	7	22	15	9	24	17	13	6	9	6	7	9	8	4	1
116	17	8	19	14	17	13	10	11	8	16	15	19	10	15	21	44	1
61	10	4	10	11	4	6	4	4	6	11	7	12	4	9	13	27	1
55	7	4	9	3	13	7	6	7	2	5	8	7	6	6	8	17	..

† Stillbirths not included.

PRIMARY TABLES RELATING TO DEATHS AND CAUSES OF DEATH IN MICHIGAN DURING THE YEAR 1899.

TABLE I.—Deaths in Michigan, by months, counties and sex, during the year 1899. (Stillbirths included.)

TABLE II.—Deaths in Michigan, by ages, counties and sex, during the year 1899. (Stillbirths included.)

TABLE III.—Causes of death in Michigan, by months, ages, and sex, during the year 1899. (Stillbirths included.)

TABLE IV.—Causes of death in Michigan, by counties, during the year 1899. (Stillbirths included.)

TABLE V.—Deaths in Michigan, by months, cities, and sex, during the year 1899. (Stillbirths included.)

TABLE VI.—Deaths in Michigan, by ages, cities and sex, during the year 1899. (Stillbirths included.)

TABLE VII.—Causes of death in Michigan, by cities, during the year 1899. (Stillbirths included.)

NOTE—*Secondary tables*, containing death rates and other ratios, and *comparative tables*, displaying the mortality of Michigan for the year 1899 in connection with previous years and other States and countries, may be found on preceding pages of this Report, together with the descriptive text.

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TABLE I.—Deaths in Michigan by months, counties and sex, during the year 1899.
(Stillbirths included.)

State and counties.	Sex.	Year, 1899.	Months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
STATE.....	Total..	33,675	3,269	3,828	3,354	3,054	2,594	2,242	2,439	2,788	2,753	2,479	2,366	2,509
	Males..	18,025	1,768	1,987	1,811	1,655	1,334	1,197	1,326	1,484	1,526	1,347	1,294	1,296
	Fem... 15,605	1,501	1,835	1,541	1,391	1,258	1,039	1,111	1,297	1,226	1,127	1,068	1,211	1,211
	Unk... 45	.....	6	2	8	2	6	2	7	1	5	4	2	2
Alcona.....	Total..	31	4	6	4	2	3	1	1	1	3	2	1	3
	Males..	21	3	5	2	1	3	.....	.....	1	1	2	1	2
	Fem... 10	1	1	2	1	.....	.....	1	1	.....	2	.....	.....	1
Alger.....	Total..	39	3	1	2	5	2	7	5	7	.....	2	1	4
	Males..	24	3	.....	1	2	1	5	1	6	.....	2	1	2
	Fem... 15	.....	1	1	3	1	2	4	1	.....	.....	.....	.....	2
Allegan.....	Total..	572	64	69	58	63	44	33	32	42	54	38	30	45
	Males..	302	36	39	31	32	18	17	16	23	30	21	15	24
	Fem... 269	28	30	27	30	26	16	16	16	19	24	17	15	21
	Unk... 1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Alpena.....	Total..	233	33	22	21	14	21	16	19	19	17	19	16	16
	Males..	130	22	12	6	7	15	9	9	11	11	10	11	7
	Fem... 103	11	10	15	7	6	7	10	8	8	6	9	5	9
Antrim.....	Total..	233	17	21	28	18	23	14	17	23	24	18	12	18
	Males..	130	9	13	16	7	12	9	8	12	14	10	8	12
	Fem... 103	8	8	12	11	11	5	9	11	10	8	4	6	6
Arenac.....	Total..	127	8	12	15	11	7	7	18	12	11	14	8	4
	Males..	71	5	11	7	6	2	4	9	6	6	5	7	3
	Fem... 56	3	1	8	5	5	3	9	6	5	5	9	1	1
Baraga.....	Total..	60	.....	3	8	12	3	5	6	10	4	4	.....	5
	Males..	31	.....	1	4	5	3	3	3	5	4	1	.....	2
	Fem... 29	.....	2	4	7	.....	2	3	5	.....	3	.....	.....	3
Barry.....	Total..	296	27	46	28	38	19	20	25	17	25	22	15	14
	Males..	171	17	29	19	21	13	12	14	10	15	12	11	7
	Fem... 125	10	26	9	17	6	8	11	7	10	10	4	7	7
Bay.....	Total..	403	77	94	76	70	68	54	60	67	61	47	65	64
	Males..	453	42	48	40	37	41	30	40	37	41	24	40	33
	Fem... 349	35	46	36	32	27	24	20	30	20	23	25	31	31
	Unk... 1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Benzie.....	Total..	135	16	16	23	7	11	8	5	14	15	4	9	7
	Males..	74	9	8	17	5	4	4	3	8	7	1	5	3
	Fem... 60	7	8	6	2	7	4	2	5	8	8	3	4	4
Berrien.....	Total..	653	61	91	75	61	43	56	37	49	53	37	43	47
	Males..	336	26	47	42	30	22	26	15	28	32	17	28	23
	Fem... 315	35	44	33	31	21	29	22	20	20	21	20	15	24
	Unk... 2	.....	.....	.....	.....	.....	1	.....	.....	1	.....	.....	.....	.....
Branch.....	Total..	402	43	39	47	28	36	28	24	26	31	35	28	37
	Males..	192	25	17	20	12	16	12	10	12	19	18	15	16
	Fem... 208	18	22	27	15	20	15	14	14	12	17	13	21	21
	Unk... 2	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Calhoun.....	Total..	765	85	88	86	66	45	53	41	56	68	64	65	48
	Males..	406	49	41	50	33	21	29	23	31	38	29	37	25
	Fem... 355	36	46	36	33	24	23	18	24	30	34	28	23	23
	Unk... 4	.....	1	.....	.....	.....	.....	1	.....	1	.....	1	.....	.....
Cass.....	Total..	298	43	34	26	35	31	14	21	11	12	25	25	21
	Males..	166	21	22	12	20	15	7	11	3	7	16	17	15
	Fem... 132	22	12	14	15	16	7	10	8	5	5	8	8	6
Charlevoix...	Total..	157	10	20	11	19	13	11	7	18	10	9	16	13
	Males..	89	6	12	6	13	10	6	5	9	6	3	7	6
	Fem... 68	4	8	5	6	3	5	2	9	4	6	9	7	7

VITAL STATISTICS OF MICHIGAN, 1899

TABLE I.—Continued.—Deaths in Michigan, by months, counties and sex, 1899.

Counties.	Sex.	Year, 1890.	Months, 1890.											
			Jan.	Feb.	Mar.	Apr.	May	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Cheboygan...	Total ..	267	14	13	12	23	22	13	11	22	22	18	14	23
	Males..	116	7	7	5	13	14	8	5	14	10	9	9	15
	Fem...	90	7	6	7	10	8	5	6	8	11	9	5	8
	Unk...	1								1				
Chippewa....	Total ..	254	25	24	19	40	19	13	23	29	22	13	18	
	Males..	150	17	10	6	26	12	11	16	19	11	7	11	4
	Fem...	104	8	14	13	14	7	2	7	10	11	6	7	5
	Unk...													
Clare.....	Total ..	91	8	12	10	8	10	7	5	5	8	4	9	5
	Males..	53	4	8	7	6	5	4	1	2	6	3	5	2
	Fem...	38	4	4	3	2	5	3	4	3	2	1	4	3
	Unk...													
Clinton.....	Total ..	340	30	46	38	25	26	29	26	26	24	21	23	26
	Males..	171	13	22	23	9	16	15	13	15	13	6	12	14
	Fem...	168	17	24	15	16	10	14	13	10	11	15	11	12
	Unk...	1								1				
Crawford....	Total ..	24		3	3	2	5		1	3	2	1	3	1
	Males..	10		1	2	1	1			1	1		3	
	Fem...	14		2	1	1	4		1	2	1	1		1
	Unk...													
Delta.....	Total ..	304	37	31	25	33	27	20	23	27	26	20	11	24
	Males..	173	19	19	15	20	14	13	13	17	16	11	5	11
	Fem...	129	18	12	10	13	13	7	10	10	10	8	5	13
	Unk...	2										1	1	
Dickinson...	Total ..	236	29	26	13	14	18	14	25	19	22	16	14	26
	Males..	135	14	15	9	10	7	9	15	12	9	13	8	14
	Fem...	101	15	11	4	4	11	5	10	7	13	3	6	12
	Unk...													
Eaton.....	Total ..	439	56	52	54	26	32	26	35	31	34	31	31	31
	Males..	208	23	21	24	10	19	10	14	20	18	13	17	19
	Fem...	231	33	31	30	16	13	16	21	11	16	18	14	12
	Unk...													
Emmet.....	Total ..	166	16	13	9	12	15	10	14	19	21	13	11	13
	Males..	92	10	8	5	6	12	2	9	9	12	8	6	5
	Fem...	74	6	5	4	6	3	8	5	10	9	5	5	8
	Unk...													
Genesee.....	Total ..	565	48	60	56	56	51	42	37	43	43	46	37	46
	Males..	307	29	25	32	30	27	23	25	22	20	26	19	29
	Fem...	258	19	35	24	26	24	19	12	21	23	20	18	17
	Unk...													
Gladwin.....	Total ..	45	5	6	3	7	3	3	1	2	5	3	7	
	Males..	29	4	4	1	4	1	2		1	5	2	5	
	Fem...	16	1	2	2	3	2	1	1	1		1	2	
	Unk...													
Gogebic.....	Total ..	213	19	18	26	19	16	7	20	18	21	16	21	12
	Males..	136	9	13	18	11	11	5	16	11	18	8	11	5
	Fem...	77	10	5	8	8	5	2	4	7	3	8	10	7
	Unk...													
Gd. Traverse.	Total ..	312	26	30	36	35	26	17	13	29	36	25	19	20
	Males..	157	15	11	20	18	14	6	5	18	14	11	11	14
	Fem...	155	11	19	16	17	12	11	8	11	22	14	8	6
	Unk...													
Gratiot.....	Total ..	415	20	57	53	29	32	28	30	39	37	28	25	37
	Males..	204	8	28	27	18	18	18	10	19	19	12	10	17
	Fem...	211	12	29	26	11	14	10	20	20	18	16	15	20
	Unk...													
Hillsdale....	Total ..	448	42	45	62	42	26	33	29	31	38	37	22	41
	Males..	228	23	22	32	21	15	16	17	20	17	16	14	15
	Fem...	220	19	23	30	21	11	17	12	11	21	21	8	26
	Unk...													
Houghton...	Total ..	1,002	69	78	105	102	105	70	86	98	96	67	61	65
	Males..	615	43	44	60	67	56	47	53	67	63	34	42	39
	Fem...	387	26	34	45	35	49	23	33	31	33	33	19	26
	Unk...													
Huron.....	Total ..	393	34	51	34	36	29	23	32	32	40	18	26	28
	Males..	213	16	26	17	22	16	14	19	14	26	11	15	17
	Fem...	180	18	25	17	14	13	9	13	18	14	7	11	11
	Unk...													
Ingham.....	Total ..	538	60						35	46	49	49	35	37
	Males..	302	37							24	33	32	19	16
	Fem...	235	23							22	16	17	15	21
	Unk...	1											1	

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TABLE I.—Continued.—Deaths in Michigan, by months, counties and sex, 1899.

Counties.	Sex.	Year 1899.	Months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Ionia.....	{ Total ..	502	57	76	43	47	42	36	31	40	40	32	23	35
	{ Males..	266	24	30	23	26	29	16	20	23	24	19	15	17
	{ Fem ...	236	33	46	20	21	13	20	11	17	16	13	8	18
Iosco.....	{ Total ..	145	9	13	11	11	14	6	14	15	17	12	10	13
	{ Males..	75	5	7	6	6	5	4	7	7	13	4	5	6
	{ Fem ...	70	4	6	5	5	9	2	7	8	4	8	5	7
Iron.....	{ Total ..	46	2	6	6	3	2	2	4	1	9	1	2	8
	{ Males..	23	.....	3	4	1	1	1	3	1	4	1	2	2
	{ Fem ...	23	2	3	2	2	1	1	1	.....	5	.....	.....	6
Isabella.....	{ Total ..	301	26	33	31	36	31	21	14	28	24	15	19	23
	{ Males..	150	13	13	14	20	16	13	5	10	15	10	8	13
	{ Fem ...	151	13	20	17	16	15	8	9	18	9	5	11	10
Jackson.....	{ Total ..	644	70	81	44	51	49	29	61	42	50	58	50	59
	{ Males..	338	35	41	26	25	28	14	34	26	31	26	26	26
	{ Fem ...	305	35	40	18	25	21	15	27	16	19	32	24	33
	{ Unk....	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kalamazoo...	{ Total ..	699	70	84	77	65	59	41	51	45	49	59	56	43
	{ Males..	373	46	44	37	35	29	20	25	24	28	36	28	21
	{ Fem ...	324	24	40	39	30	30	21	26	21	21	22	28	22
	{ Unk....	2	.....	.....	1	.....	.....	.....	.....	.....	.....	1	.....	.....
Kalkaska.....	{ Total ..	101	3	5	11	8	8	5	13	12	15	3	11	7
	{ Males..	48	2	2	5	4	3	2	4	7	7	1	6	5
	{ Fem ...	52	1	3	6	4	5	3	9	5	8	1	5	2
	{ Unk....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....
Kent.....	{ Total ..	2,011	195	262	234	182	125	126	145	143	142	147	146	164
	{ Males..	1,116	110	150	127	101	67	77	75	76	77	84	80	92
	{ Fem ...	894	85	112	107	81	58	49	70	67	65	63	65	72
	{ Unk....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
Keweenaw...	{ Total ..	44	3	5	4	5	4	3	2	.....	6	1	7	4
	{ Males..	24	1	2	2	4	.....	3	.....	.....	5	1	3	3
	{ Fem ...	20	2	3	2	1	4	.....	2	.....	1	.....	4	1
Lake.....	{ Total ..	71	5	4	10	6	12	3	5	5	5	6	3	7
	{ Males..	39	2	3	8	3	4	1	3	4	4	3	2	2
	{ Fem ...	32	3	1	2	3	8	2	2	1	1	3	1	5
Lapeer.....	{ Total ..	390	42	49	33	29	32	26	25	31	32	35	27	29
	{ Males..	197	22	27	15	18	16	18	13	12	12	14	13	17
	{ Fem ...	193	20	22	18	11	16	8	12	19	20	21	14	12
Leelanau.....	{ Total ..	181	19	22	25	17	9	11	11	21	10	14	14	8
	{ Males..	96	9	14	17	7	5	5	7	11	5	9	5	2
	{ Fem ...	85	10	8	8	10	4	6	4	10	5	5	9	6
Lenawee.....	{ Total ..	646	65	79	78	48	54	45	29	41	60	49	44	54
	{ Males..	317	34	35	39	22	26	23	17	20	26	25	23	27
	{ Fem ...	329	31	44	39	26	28	22	12	21	34	24	21	27
Livingston...	{ Total ..	280	20	49	27	29	20	15	15	26	22	15	21	21
	{ Males..	150	11	21	17	17	7	7	12	17	11	10	9	11
	{ Fem ...	130	9	28	10	12	13	8	3	9	11	5	12	10
Luce.....	{ Total ..	12	.....	1	1	.....	2	.....	.....	1	2	1	2	2
	{ Males..	6	.....	1	.....	.....	1	.....	.....	.....	.....	.....	2	2
	{ Fem ...	6	.....	.....	1	.....	1	.....	.....	1	2	1	.....	.....
Mackinac.....	{ Total ..	73	7	3	9	6	5	5	6	8	8	6	7	3
	{ Males..	47	5	3	5	4	3	4	3	4	6	4	6	.....
	{ Fem ...	25	2	.....	4	2	2	1	2	4	2	2	1	3
	{ Unk....	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....
	{ Total ..	522	63	61	52	45	46	29	39	40	35	49	34	29
	{ Males..	267	35	28	33	27	22	18	20	17	13	22	17	15
	{ Fem ...	253	28	33	19	17	24	11	19	22	22	27	17	14
	{ Unk....	2	.....	.....	.....	1	.....	.....	.....	1	.....	.....	.....	.....

TABLE II.—Continued.—Deaths in Michigan by ages, counties

Counties.	Sex.	Total deaths at all ages, 1899.*	Still-born.	Ages in years.				
				Under 1 year.†	1.	2.	3.	4.
Ontonagon.....	Total.....	54		9	6		1	1
	Males.....	31		5	3			1
	Fem.....	23		4	3		1	
Osceola.....	Total.....	211	5	46	9	5	4	2
	Males.....	106	4	17	4	1	3	2
	Fem.....	105	1	29	5	4	1	
Oscoda.....	Total.....	2			1			
	Males.....	2			1			
	Fem.....							
Otsego.....	Total.....	48	1	9	3			
	Males.....	32		7	1			
	Fem.....	16	1	2	2			
Ottawa.....	Total.....	611	20	104	17	14	7	5
	Males.....	319	10	45	10	6	4	2
	Fem.....	292	10	59	7	8	3	3
Presque Isle.....	Total.....	45		20	2			1
	Males.....	29		15	1			
	Fem.....	16		5	1			1
Roscommon.....	Total.....	8	2	2				
	Males.....	2		1				
	Fem.....	5	1	1				
	Unk.....	1						
Saginaw.....	Total.....	1,063	62	207	24	16	11	6
	Males.....	583	38	117	13	10	8	3
	Fem.....	478	22	90	11	6	3	3
	Unk.....	2	2					
St. Clair.....	Total.....	751	46	129	26	13	13	5
	Males.....	393	25	75	13	8	3	2
	Fem.....	356	19	54	13	5	10	3
	Unk.....	2	2					
St. Joseph.....	Total.....	328	8	29	6	2	1	3
	Males.....	179	5	15	5	1	1	2
	Fem.....	149	3	14	1	1		1
Sanilac.....	Total.....	402	15	84	11	7	6	3
	Males.....	206	9	42	7	4	4	
	Fem.....	195	5	42	4	3	2	3
	Unk.....	1	1					
Schoolcraft.....	Total.....	60	1	18	2	1		1
	Males.....	33	1	10		1		
	Fem.....	27		8	2			1
Shiawassee.....	Total.....	481	6	70	11	9	4	3
	Males.....	258	2	42	7	4		2
	Fem.....	220	3	26	4	5	4	1
	Unk.....	3	1	2				
Tuscola.....	Total.....	433	18	70	13	8	4	
	Males.....	215	11	45	7	3	2	
	Fem.....	216	6	24	6	5	2	
	Unk.....	2	1	1				
Van Buren.....	Total.....	470	4	63	19	7	2	2
	Males.....	237	2	38	10	3	2	1
	Fem.....	233	2	25	9	4		1
Washtenaw.....	Total.....	631	7	58	8	8	7	3
	Males.....	329	6	35	3	1	4	3
	Fem.....	302	1	23	5	7	3	

*Stillbirths included.

†Stillbirths not included.

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and sex, during the year 1899. (Stillbirths included.)

Ages in five-year periods.																	
Under 5 years.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 and over.	Unk.
17	2	2	1	.....	3	4	4	2	6	1	1	2	3	3	2	1	..
9	1	1	.....	1	1	2	3	.....	5	1	.....	1	2	3	2	1	..
8	2	1	1	.....	2	2	1	2	1	1	1	1	1	.....	.....	.....	..
68	15	9	14	8	8	8	3	5	9	4	4	12	9	13	10	9	..
27	7	4	10	5	4	6	2	3	4	4	2	6	5	5	5	3	..
30	8	5	4	3	4	2	1	2	5	.....	2	6	4	8	5	6	..
1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	..
1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	..
12	2	.....	4	2	5	3	1	2	2	1	2	2	.....	1	1	6	1
8	1	.....	2	1	4	2	.....	2	1	1	1	2	.....	.....	1	5	1
4	1	.....	2	1	1	1	1	.....	1	.....	1	.....	.....	1	.....	1	.....
147	11	8	25	15	21	16	21	22	21	25	32	29	41	49	42	65	1
67	6	3	13	10	9	6	6	10	10	11	16	12	26	36	24	43	1
80	5	5	12	5	12	10	15	12	11	14	16	17	15	13	18	22	..
23	1	.....	.....	.....	1	.....	.....	.....	3	3	.....	1	2	3	2	5	1
16	1	.....	.....	.....	1	.....	.....	.....	3	1	.....	1	.....	.....	2	3	1
7	.....	.....	.....	.....	.....	.....	.....	.....	2	2	.....	.....	2	3	.....	2	.....
2	.....	.....	.....	.....	.....	.....	.....	.....	2	1	.....	.....	1	.....	.....	.....	..
1	.....	.....	.....	.....	.....	.....	.....	.....	2	1	.....	.....	1	.....	.....	.....	..
1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	..
264	23	23	35	51	37	37	25	34	38	28	52	44	62	83	70	93	2
151	10	14	18	27	13	14	7	16	25	16	31	28	39	45	39	50	2
113	13	9	17	24	24	23	18	18	13	12	21	16	23	38	31	43	..
186	20	10	20	20	24	19	23	25	21	21	30	34	47	58	58	85	4
101	11	6	11	10	5	10	11	9	11	15	17	21	24	30	37	36	3
85	9	4	9	10	19	9	12	16	10	6	13	13	23	28	21	49	1
41	2	3	10	4	13	11	13	9	14	16	19	26	23	34	40	42	..
24	1	6	6	3	7	2	7	5	7	6	11	14	15	20	24	22	..
17	2	4	1	1	6	9	6	4	7	10	8	12	8	14	16	20	..
111	15	6	11	13	17	15	11	12	8	14	16	17	18	33	33	36	1
87	7	4	8	4	7	6	7	5	5	9	8	9	8	15	24	13	1
54	8	2	3	9	10	9	4	7	3	5	8	8	10	18	9	23	..
22	2	1	1	1	4	1	3	5	3	2	.....	6	1	2	1	4	..
11	2	1	1	.....	1	1	3	3	2	1	.....	3	1	2	.....	3	..
11	.....	.....	.....	1	3	1	.....	2	.....	2	.....	3	.....	.....	1	1	..
97	17	11	13	11	20	15	10	15	30	14	28	33	32	38	33	58	..
55	11	3	9	6	6	6	5	6	18	7	12	20	20	20	23	29	..
40	6	8	4	5	14	9	5	9	12	7	15	13	12	18	10	29	..
2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	..
96	9	9	23	14	15	18	13	10	11	16	20	26	28	37	28	42	1
57	2	4	11	5	5	6	1	2	4	10	12	14	14	20	18	19	..
37	7	5	12	9	10	12	12	8	7	6	8	12	14	17	10	23	1
1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	..
93	10	8	11	11	10	14	12	15	16	21	21	33	36	46	52	57	..
54	4	1	5	2	2	2	4	5	9	12	10	18	20	27	28	32	..
39	6	7	6	9	8	12	8	10	7	9	11	15	16	19	24	25	..
94	9	14	21	38	19	19	23	26	23	25	38	28	63	58	54	81	1
46	5	8	11	23	5	9	12	16	12	13	22	19	32	29	25	35	1
38	4	6	10	15	14	10	11	10	11	12	16	9	31	20	29	46	..

†Stillbirths not included.

VITAL STATISTICS OF MICHIGAN, 1899

TABLE II.—Concluded.—Deaths in Michigan by ages, counties

Counties.	Sex.	Total deaths at all ages, 1899 *	Still-born.	Ages in years.				
				Under 1 year.†	1.	2.	3.	4.
Wayne	Total	5,652	357	1,396	266	123	66	57
	Males	2,938	211	757	143	70	27	16
	Fem	2,712	144	639	123	53	39	41
	Unk	2	2					
Wexford	Total	236	11	45	18	7	8	2
	Males	126	5	24	9	3	1	1
	Fem	110	6	21	9	4	7	1

*Stillbirths included.

†Stillbirths not included.

DEATHS

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and sex, during the year 1899. (Stillbirths included.)

Ages in five-year periods.																	
Under 5 years.†	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 and over.	Unk.
1,908	143	93	135	231	213	186	212	200	191	211	217	267	283	253	242	304	6
1,013	72	49	62	97	84	82	105	110	112	113	126	149	143	115	129	152	4
895	71	44	73	134	129	104	107	90	79	98	91	118	140	128	113	152	2
80	8	6	13	17	9	7	5	4	7	12	9	10	14	11	11	1	1
38	6	4	10	10	3	6	2	2	5	7	3	5	8	7	4	1	..
42	2	2	3	7	6	1	3	2	2	5	6	5	6	4	7	.....	1

†Stillbirths not included.

TABLE III.—Causes of death in Michigan, by months.

Classification No.	Causes of death, 1899.	Sex.	Total deaths, 1899.	Months of death, 1899.											
				Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
	ALL CAUSES.....	Total. Males. Fem.. Unk..	33,675 18,025 15,605 45	3,269 1,768 1,501	3,828 1,987 1,835 6	3,354 1,811 1,541 2	3,054 1,655 1,391 8	2,594 1,334 1,258 2	2,242 1,197 1,039 6	2,439 1,326 1,111 2	2,788 1,484 1,297 7	2,753 1,526 1,226 1	2,479 1,347 1,127 5	2,366 1,294 1,068 4	2,544 1,296 1,211 2
	<i>Stillbirths.</i> (Included in above)	Total. Males. Fem.. Unk..	1,386 785 562 39	141 88 53	124 71 48 5	131 73 56 2	124 69 48 7	107 57 48 2	102 50 47 5	112 52 58 2	105 61 38 6	91 56 34 1	119 67 48 4	110 69 38 3	120 72 46 2
1	Typhoid fever.....	Total. Males. Fem.. Unk..	523 285 238	22 13 9	25 14 11	31 20 11	30 16 14	24 10 14	28 19 9	33 20 13	47 23 24	73 40 33	106 55 51	61 34 27	43 21 22
1a	Typhomalarial fever.....	Total. Males. Fem.. Unk..	57 28 29	6 2 4	1 1	6 3 3	5 2	3 1 2	2 2	6 4 2	4 3 1	3 *2 1	10 6 4	5 3 2	6 1 5
2	Typhus fever.....	Total. Males. Fem.. Unk..	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....
3	Scurvy.....	Total. Males. Fem.. Unk..	16 5 11	2 2	4 1 3 .....	..... ..... ..... .....	2 2 .....	..... ..... ..... .....	1 1	1 1	1 1	2 1	1 1	1 1	1 1
4	Smallpox.....	Total. Males. Fem.. Unk..	6 4 2	1 1	 1	3 1	1 1 ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	1 1
5	Measles.....	Total. Males. Fem.. Unk..	187 88 99	9 5 4	16 7 9	11 10 1	23 12 13	15 12 3	23 13 10	10 4 6	9 8	2 2	12 6 6	24 14 18	33 13 19
6	Scarlet fever.....	Total. Males. Fem.. Unk..	144 71 73	12 6 6	8 3 5	13 9 4	6 2 4	7 3 4	8 4 4	9 6 3	10 5 5	8 5 3	20 9 11	18 9 10	25 11 14
7	Whooping cough.....	Total. Males. Fem.. Unk..	238 120 118	15 8 7	20 12 8	22 8 14	17 7 10	14 5 9	15 9 6	19 10 9	34 18 16	26 15 11	15 10 5	17 12 5	24 16 18
8a	Diphtheria.....	Total. Males. Fem.. Unk..	296 125 171	27 12 15	25 13 12	16 5 11	15 4 9	19 10 9	13 8 5	13 5 8	16 11 5	22 9 13	41 17 24	40 14 26	49 17 32
8b	Membranous croup.....	Total. Males. Fem.. Unk..	86 46 40	8 4 2	10 4 6	5 4 1	4 2 2	3 1 1 .....	..... ..... ..... .....	..... ..... ..... .....	3 2 1	6 4 2	13 8 5	13 5 8	17 7 10
8c	Croup.....	Total. Males. Fem.. Unk..	53 35 18	5 1 4	7 5 2	3 3	2 2	2 2 ..... .....	..... ..... ..... .....	1 4	4 2 2	4 2 2	6 4 5	9 4 8	8 6 2
9	Influenza.....	Total. Males. Fem.. Unk..	1,673 845 828	400 205 195	690 342 348	325 167 158	143 73 70	33 14 19	22 11 11	 7 4	 5 1	 8 3	 8 5	 8 4	 20 10
10	Miliary fever.....	Total. Males. Fem.. Unk..	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....
11	Asiatic cholera.....	Total. Males. Fem.. Unk..	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....

DEATHS

11

counties and sex, during the year 1899. (Stillbirths included.)

Ages in five-year periods.

Under 5 years.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 and over.	Unk.
72 37 35	10 7 3	3 3 ...	9 6 3	7 2 5	3 2 1	9 2 7	5 1 4	5 3 2	14 8 6	3 3 ...	8 5 3	2 1 1	7 4 3	6 5 1	9 5 4	10 6 4	2 2 ..
94 52 42	10 6 4	4 2 2	8 6 2	21 14 7	12 5 7	7 4 3	16 8 8	11 7 4	9 7 2	7 5 2	12 8 4	7 2 5	4 3 1	5 4 1	6 4 2	9 4 5	3 3 ..
38 24 14	1 1 ...	2 2 ...	3 ...	1 1 3	3 1 2	1 1 ...	3 2 1	7 2 5	4 2 2	3 2 1	7 5 2	2 1 1	2 1 1	4 3 1	4 2 2	6 3 3	..
60 39 21	4 3 1	5 2 3	17 3 14	7 3 4	5 3 2	5 1 4	10 5 5	4 1 3	11 6 5	12 6 6	21 14 7	25 12 13	32 15 17	38 15 23	35 18 17	43 21 22	..
7 3 4	2 1 1	...	...	...	...	1 ...	...	3 1 2	2 1 1	1 ...	...	2 2 1	1 ...	3 ...	...	2 2 ...	..
100 53 47	8 4 4	6 5 1	10 3 7	20 8 12	19 14 5	12 6 6	18 13 5	17 11 6	14 12 2	16 12 4	4 3 1	7 5 2	13 5 8	6 2 4	5 4 1	9 5 4	1 1 ..
120 64 56	4 2 2	5 3 3	7 3 4	8 6 2	9 6 2	6 4 2	15 8 7	13 8 5	2 1 1	6 5 1	3 3 ...	4 3 3	7 7 ...	5 2 3	3 1 2	3 3 ...	..
73 35 38	4 2 2	6 2 4	8 2 6	13 3 10	14 8 6	14 6 8	12 5 7	8 3 5	9 3 6	20 11 9	25 11 14	37 15 22	36 17 19	46 17 27	40 17 23	68 30 30	..
52 36 16	8 4 4	2 1 1	7 4 3	7 2 5	6 3 3	6 1 5	6 3 3	4 2 2	3 1 2	5 2 3	9 6 3	8 6 3	14 6 8	8 4 4	8 5 3	10 5 5	..
90 53 37	11 7 4	13 8 5	19 13 6	21 14 7	13 4 9	16 6 10	13 7 6	16 9 7	23 13 10	26 11 15	37 18 19	37 20 17	34 15 19	47 27 20	59 33 26	72 38 34	4 2 2
18 12 6	1 1 ...	1 1 ...	...	2 ...	2 2 1	2 1 1	...	4 3 1	...	3 1 2	...	1 3 1	3 2 ...	2 1 ...	1 1 ...	2 1 1	1 1 1
98 63 35	8 2 6	1 1 ...	6 4 2	8 2 2	11 8 3	9 6 3	14 8 6	10 6 4	10 5 5	5 5 ...	4 3 1	7 4 3	3 1 2	4 2 2	1 ...	...	..
69 33 36	8 4 4	4 3 1	13 6 7	10 5 5	18 5 12	12 5 7	15 5 10	14 9 5	8 6 2	19 9 10	15 6 9	16 6 10	23 13 10	23 14 9	16 11 5	18 10 8	..
104 54 50	6 3 3	14 8 6	12 5 7	19 9 10	11 9 7	12 2 10	11 4 7	12 4 8	9 3 6	14 9 5	20 12 8	32 15 17	26 13 13	29 19 10	35 18 17	37 16 21	1 1 ..
72 40 32	5 3 2	3 2 1	13 7 6	11 6 5	8 5 3	14 5 9	15 9 6	14 5 9	10 3 7	14 8 6	22 7 15	33 17 16	39 23 16	42 18 24	60 29 31	69 40 29	..
429 270 150	65 32 33	43 21 22	28 21 7	51 29 22	50 35 15	42 33 9	45 21 24	35 18 17	24 11 13	23 17 6	24 15 9	18 12 6	25 18 7	21 12 9	22 12 8	10 6 4	5 4 1
7 0 7	8 4 4	19 10 9	14 11 3	17 11 13	13 6 7	10 4 6	11 4 6	8 2 2	16 11 5	15 7 8	19 12 7	10 4 6	15 9 8	21 9 6	23 9 8	44 17 17	1 1 ..

.. not included.

VITAL STATISTICS OF MICHIGAN, 1899

TABLE III.—Continued.—Causes of death in Michigan, by months.

Classification No.	Causes of death, 1899.	Sex.	Total deaths, 1899.	Months of death, 1899.											
				Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
12	Cholera nostras..	Total. Males. Fem..	1 1 1									1 1			
13	Other epidemic diseases.....	Total. Males. Fem..	7 5 2				3 1 2	1 1	1 1	1 1					1 1
14	Pyemia and sep- ticemia.....	Total. Males. Fem..	169 78 91	16 6 10	10 2 8	16 9 7	20 15 5	15 8 7	18 7 11	9 4 5	19 9 10	16 5 11	9 3 6	9 6 3	12 4 8
15	Glanders.....	Total. Males. Fem..													
16	Malignant pus- tule.....	Total. Males. Fem..													
17	Rabies.....	Total. Males. Fem..	1 1												
18	Relapsing fever.	Total. Males. Fem..													
19-20	Malaria.....	Total. Males. Fem..	145 76 69	9 7 2	10 5 5	7 5 2	13 8 5	12 7 5	2 1 1	10 7 3	10 6 4	21 7 14	31 14 17	11 6 5	9 3 6
21	Pellagra.....	Total. Males. Fem..													
22a	Tuberculosis— lungs.....	Total. Males. Fem..	2,098 902 1,196	169 75 94	207 90 117	215 102 113	198 99 99	211 91 120	143 58 85	152 61 91	154 51 103	141 58 86	163 69 94	162 72 90	180 76 104
22b	Tuberculosis— meninges.....	Total. Males. Fem..	142 82 60	11 7 4	13 5 8	24 14 10	20 10 10	16 10 6	11 7 4	5 2 3	12 7 5	7 5 2	8 5 3	8 4 4	7 6 1
22c	Tuberculosis— peritoneum.....	Total. Males. Fem..	104 47 57	5 4 1	8 3 5	6 4 2	5 2 3	13 4 9	8 3 5	10 2 8	10 4 6	15 10 5	4 1 3	10 5 5	10 5 5
22d	Tuberculosis— skin.....	Total. Males. Fem..	2 2									1 1		1 1	
22e	Tuberculosis— other organs...	Total. Males. Fem..	92 53 39	11 5 6	9 5 4	11 7 4	12 7 5	6 2 4	7 4 3	6 4 2	8 4 3	10 7 3	4 3 1	7 4 3	1 1
22f	Tuberculosis— general.....	Total. Males. Fem..	256 136 120	31 22 9	26 13 13	35 20 15	14 7 7	14 11 3	37 18 19	17 10 7	19 9 10	23 11 12	10 7 3	10 5 5	20 3 17
23	Scrofula.....	Total. Males. Fem..	20 6 14	1 1 3	4 1 3	3 1 2	3 3 1	1 1		1 1	3 1	1 1	1 1	1 1	1 1
24	Syphilis.....	Total. Males. Fem..	60 34 26	1 1 1	3 2 1	5 2 3	6 5 1	5 3 2	2 1 1	4 1 2	11 5 6	7 4 3	7 5 2	5 2 3	4 2 2

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Ages of decedents, 1899.																				Classification No.				
Ages in years under five.					Ages by five-year periods.																			
0.	1.	2.	3.	4.	0 to 4.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.		75 to 79.	80 +.	Unk.	
			1		1																			12
			1		1																			
4	2			1	7																			13
4	2			1	2																			
15	4	3	1	1	24	10	5	4	19	11	13	12	17	7	5	9	7	10	3	8	5			14
8	1	1			20	7	4	1	10	11	3	3	9	3	5	4	6	4	2	5	2			
7	3	2	1	1	14	3	1	3	9	11	10	9	8	4		5	1	6	1	3	3			
																								15
																								16
			1		1																			17
			1		1																			
																								18
9	6	2	3	6	26	7	8	10	11	6	7	4	4	11	5	5	8	9	10	6	8			19-20
6	4	1	1	3	15	3	1	4	8	3	5	3	3	7	3	3	3	6	4	3	2			
3	2	1	2	3	11	4	7	6	3	3	2	1	1	4	2	2	5	3	6	3	6			
																								21
19	7	5	1	6	35	11	39	195	351	310	237	192	161	121	102	79	85	73	49	35	20	3		22a
7	6	3		2	18	5	6	70	134	123	83	87	80	65	55	37	38	45	26	19	9	2		
9	1	2	1	4	17	6	33	125	217	187	154	105	81	56	47	42	47	28	23	16	11	1		
43	15	16	11	5	90	14	9	8	4	6	1	2	1	2	1	1	2	1						22b
27	9	13	9	4	62	5	2	2	4	2	1	1		1		1	1	1						
16	6	3	2	1	28	9	7	6		4		1	1	1	1	1	1							
																								22c
9	3	1	1	2	16	4	5	8	13	14	10	5	4	6	3	7	4	2	2		1			22d
7	1	1	1	1	11																			

VITAL STATISTICS OF MICHIGAN, 1899

TABLE III.—Continued.—Causes of death in Michigan, by months.

Classification No.	Causes of death, 1899.	Sex.	Total deaths, 1899.	Months of death, 1899.											
				Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
25a	Cancer—mouth...	Total..	18	3	1	1	1	1	1	1	3	2	1	2	1
		Males..	12	3	1	1	1	1	1	1	2	1	1	2	1
		Fem..	6								1	1	1		
25b	Cancer—stomach or liver.....	Total..	481	33	45	42	43	33	36	44	41	43	45	40	36
		Males..	268	23	19	19	19	17	20	25	25	29	24	25	23
		Fem..	213	10	26	23	24	16	16	19	16	14	21	15	13
25c	Cancer—intes- tines or rectum	Total..	93	6	6	6	7	6	6	10	9	7	6	10	14
		Males..	43	5	1	3	1		4	2	4	3	4	7	9
		Fem..	50	1	5	3	6	6	2	8	5	4	2	3	5
25d	Cancer—uterus ..	Total..	160	12	11	13	10	13	10	8	10	16	14	26	17
		Males..													
		Fem..	160	12	11	13	10	13	10	8	10	16	14	26	17
25e	Cancer—breast...	Total..	92	5	5	8	6	6	13	4	14	8	9	7	7
		Males..	1		1										
		Fem..	91	5	4	8	6	6	13	4	14	8	9	7	7
25f	Cancer—skin	Total..	26	2	7	9	9	5	9	10	8	7	5	12	13
		Males..	74	2	6	7	8	5	7	6	7	7	4	8	7
		Fem..	22	1	1	2	1		2	4	1		1	4	6
25g	Cancer—other organs	Total..	394	35	30	32	43	31	29	33	26	41	29	26	30
		Males..	162	14	15	12	22	10	10	15	12	19	15	10	8
		Fem..	232	21	24	20	21	21	19	18	14	22	14	16	22
26-27	Rheumatism	Total..	276	22	19	28	26	36	24	15	22	24	23	12	25
		Males..	149	10	10	12	15	24	10	7	12	12	13	6	18
		Fem..	127	12	9	16	11	12	14	8	10	12	10	6	7
28	Diabetes	Total..	224	24	27	15	21	16	15	15	19	17	16	21	18
		Males..	141	11	15	12	14	12	10	6	15	11	10	12	13
		Fem..	83	13	12	3	7	4	5	9	4	6	6	9	5
29	Exophthalmic goitre	Total..	24	1	2	1	2	4	2	3			6	2	1
		Males..	6				1			2				1	
		Fem..	18	1	2	1	1	4	2	1			4	1	1
30	Addison's disease	Total..	11	1	1			2		3	1	1		2	
		Males..	4					1		1	1			1	
		Fem..	7	1	1			1		2		1		1	
31	Leukemia	Total..	28		2	5	3	1		1	1	5	5	3	2
		Males..	11		1	2	1	1				2	3	1	
		Fem..	17		1	3	2			1	1	3	2	2	2
32	Anemia, chlorosis	Total..	194	14	16	22	15	19	13	16	26	17	15	10	11
		Males..	83	5	10	10	9	2	7	7	11	5	7	6	4
		Fem..	111	9	6	12	6	17	6	9	15	12	8	4	7
33	Other general diseases.....	Total..	2			1							1		
		Males..	1			1									
		Fem..	1										1		
34	Alcoholism, acute and chronic.....	Total..	68	7	5	5	7	4	5	5	8	6	6	6	4
		Males..	62	6	3	5	7	4	5	5	7	6	5	5	4
		Fem..	6	1	2						1		1	1	
35-37	Chronic poison- ing.....	Total..	20	2	2		3	3	2	1	1	5			1
		Males..	9	1			1		2						1
		Fem..	11	1	2		2	3		1	1	1			
38	Encephalitis.....	Total..	145	18	13	14	16	10	13	10	9	11	12	10	9
		Males..	92	9	11	9	13	8	8	3	4	8	4	7	8
		Fem..	53	9	2	5	3	2	5	7	5	3	8	3	1

CAUSES OF DEATH

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ages and sex, during the year 1899. (Stillbirths included.)

Ages of decedents, 1899.

Ages in years under five.					Ages by five-year periods.																	Classification No.	
0.	1.	2.	3.	4.	0 to 4.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 +		Unk.
													1.	1.		1.	2.	3.	4.	2.	2.	2.	25a
													1.	1.		1.	2.	1.	3.	2.	1.	1.	
1.			1.		2.			1.	2.	2.	8.	26.	29.	34.	48.	77.	73.	74.	50.	35.	18.	2.	25b
1.			1.		2.			1.	2.	1.	6.	19.	16.	11.	15.	33.	43.	35.	32.	21.	12.	2.	
							1.		1.	1.	4.	4.	6.	8.	8.	11.	19.	6.	7.	12.	4.	1.	25c
							1.		1.	1.	4.	1.	3.	5.	6.	2.	7.	5.	5.	6.	3.	1.	
								1.	1.	7.	6.	6.	24.	30.	15.	19.	20.	13.	12.	3.	3.		25d
								1.	1.	7.	6.	6.	24.	30.	15.	19.	20.	13.	12.	3.	3.		
										2.	2.	4.	8.	8.	15.	11.	6.	20.	5.	4.	7.		25e
										1.	1.	2.	4.	8.	15.	11.	6.	20.	5.	4.	7.		
										1.	1.	2.	1.	2.	4.	8.	9.	9.	12.	10.	11.	24.	25f
					2.			1.	1.	2.	1.	2.	4.	8.	8.	8.	7.	9.	4.	6.	19.		
																1.	2.	3.	6.	5.	5.		25g
1.		1.	1.		3.	17.	15.	20.	7.	7.	10.	9.	8.	11.	19.	22.	18.	34.	33.	24.	19.		26-27
1.		1.	1.		3.	12.	8.	8.	5.	4.	4.	4.	4.	5.	8.	14.	10.	18.	17.	15.	10.		
						5.	7.	12.	2.	3.	6.	5.	4.	6.	11.	8.	8.	16.	16.	9.	9.		28
1.		1.	2.	2.	6.	11.	13.	15.	9.	5.	5.	9.	11.	8.	22.	18.	25.	26.	15.	19.	7.		29
1.		1.	1.	1.	3.	8.	10.	7.	4.	2.	2.	4.	6.	3.	8.	5.	12.	12.	3.	4.	2.		
								4.	2.	4.	2.	1.	3.	2.	1.	2.	1.	1.	1.				30
								1.	2.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.				
								3.		3.	2.	1.	3.	2.	1.	1.	1.	1.	1.				31
2.	2.			1.	5.				1.	4.	2.	1.	4.	1.	2.	4.	1.	2.		1.			32
1.	1.			1.	2.				1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.				
2.	1.				3.				1.	3.	2.	1.	2.		1.	3.		1.					33
27.	6.		1.	1.	35.	3.	6.	7.	12.	15.	5.	8.	11.	17.	13.	12.	14.	12.	8.	7.	9.		34
12.	5.				18.	1.	2.	2.	3.	4.	1.	3.	4.	8.	6.	3.	6.	5.	7.	6.	4.		
15.	1.			1.	17.	2.	4.	5.	9.	11.	4.	5.	7.	9.	7.	9.	8.	7.	1.	1.	5.		35
1.					1.			1.															36
1.					1.			1.															
																							37
																							38
44.	17.	12.	5.	3.	81.	9.	8.	7.	4.	9.		6.	2.	2.	7.	2.	1.	2.	2.	2.	1.		39
29.	9.	11.	4.	3.	56.	2.	4.	5.	2.	4.		4.	2.	2.	2.	2.	1.	2.	2.	2.	1.		
15.	8.	1.	1.		25.	7.	4.	2.	2.	5.		2.			5.								40

TABLE II.—Continued.—Deaths in Michigan by ages, counties

Counties.	Sex.	Total deaths at all ages, 1899.*	Still-born.	Ages in years.				
				Under 1 year.†	1.	2.	3.	4.
Ontonagon.....	Total.....	54		9	6		1	1
	Males.....	31		5	3			1
	Fem.....	23		4	3		1	
Osceola.....	Total.....	211	5	46	9	5	4	2
	Males.....	106	4	17	4	1	3	2
	Fem.....	105	1	29	5	4	1	
Oscoda.....	Total.....	2			1			
	Males.....	2			1			
	Fem.....							
Otsego.....	Total.....	48	1	9	3			
	Males.....	32		7	1			
	Fem.....	16	1	2	2			
Ottawa.....	Total.....	611	20	104	17	14	7	5
	Males.....	319	10	45	10	6	4	2
	Fem.....	292	10	59	7	8	3	3
Presque Isle.....	Total.....	45		20	2			1
	Males.....	29		15	1			
	Fem.....	16		5	1			1
Roscommon.....	Total.....	8	2	2				
	Males.....	2		1				
	Fem.....	5	1	1				
Saginaw.....	Total.....	1,063	62	207	24	16	11	6
	Males.....	583	38	117	13	10	8	3
	Fem.....	478	22	90	11	6	3	3
St. Clair.....	Total.....	751	46	129	26	13	13	5
	Males.....	393	25	75	13	8	3	2
	Fem.....	356	19	54	13	5	10	3
St. Joseph.....	Total.....	328	8	29	6	2	1	3
	Males.....	179	5	15	5	1	1	
	Fem.....	149	3	14	1	1		1
Sanilac.....	Total.....	402	15	84	11	7	6	3
	Males.....	206	9	42	7	4	4	
	Fem.....	195	5	42	4	3	2	3
Schoolcraft.....	Total.....	60	1	18	2	1		1
	Males.....	33	1	10		1		
	Fem.....	27		8	2			1
Shiawassee.....	Total.....	481	6	70	11	9	4	3
	Males.....	258	2	42	7	4		2
	Fem.....	220	3	26	4	5	4	1
Tuscola.....	Total.....	433	18	70	13	8	4	
	Males.....	215	11	45	7	3	2	
	Fem.....	216	6	24	6	5	2	
Van Buren.....	Total.....	470	4	63	19	7	2	2
	Males.....	237	2	38	10	3	2	1
	Fem.....	233	2	25	9	4		1
Washtenaw.....	Total.....	631	7	58	8	8	7	3
	Males.....	329	6	35	3	1	4	3
	Fem.....	302	1	23	5	7	3	

*Stillbirths included.

†Stillbirths not included.

CAUSES OF DEATH

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ages and sex, during the year 1899. (Stillbirths included.)

Ages of decedents, 1899.

Ages in years under five.					Ages by five-year periods.																		Classification No.
0.	1.	2.	3.	4.	0 to 4.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 +	Unk.	
83	37	12	9	2	143	16	7	5	9	10	5	8	8	3	3	6	1	2	1	4	2	2	39 a
58	21	9	5	1	94	10	4	3	4	3	2	6	6	2	1	5	1	2	1	2	2	2	
25	16	3	4	1	49	6	3	2	5	7	3	2	2	2	1	2	1	1	1	2	2	2	39 b
163	78	63	50	41	385	107	74	74	42	22	21	25	13	12	4	8	7	11	2	1	1	1	
94	45	38	22	25	224	67	39	52	30	20	10	18	5	4	3	5	3	5	2	1	1	1	42
69	33	25	28	16	171	50	35	22	12	2	11	7	8	8	1	3	4	6	6	1	1	1	
55	18	6	4	4	87	12	8	8	13	12	18	26	36	50	65	115	111	151	173	172	164	4	43
30	12	3	2	2	49	7	6	5	7	5	7	18	15	21	27	62	57	88	84	97	74	3	
25	6	3	3	2	38	6	2	3	6	6	7	11	8	21	29	38	53	63	85	75	90	1	44
							2	1	1	1	1	2	1	1	9	6	10	17	22	14	14	2	
							2	1	1	1	1	2	1	1	6	2	6	10	12	6	11	2	45
															3	4	4	7	10	8	3	2	
5	3	1	1	...	10	2	2	3	3	5	9	15	14	18	37	75	73	104	143	152	175	2	46
3	2	1	...	...	6	1	1	1	1	2	4	10	5	7	15	38	30	65	73	77	91	2	
2	1	...	1	...	4	1	1	2	2	3	5	5	9	11	22	37	43	49	70	75	84	2	47
										1	2	9	12	10	11	8	8	22	12	12	9	...	48
										1	1	6	9	7	5	4	4	10	7	7	2	...	
										1	1	3	3	3	4	3	4	12	5	5	7	...	49
										2	2	2	2	2	6	4	4	4	2	3	2	4	
5	3	4	1	...	13	3	9	14	12	11	8	8	9	7	6	5	3	8	6	7	3	...	50
4	2	2	...	...	9	2	4	8	3	2	6	5	4	4	2	1	4	4	6	3	...	...	
1	1	2	...	...	4	1	5	6	9	9	2	3	5	3	2	3	2	4	2	1	...	...	
						3	...	1	...	3	...	...	1	...	...	1	...	...	1	...	...	...	51
						3	...	1	...	1	...	...	1	...	...	1	...	...	1	...	...	...	
409	27	14	8	2	470	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	52
244	16	8	3	...	271	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
164	11	6	5	2	188	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	53
1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
4	...	...	...	...	4	2	4	3	2	...	3	...	...	...	...	...	2	...	...	...	...	...	54
4	...	...	...	...	4	2	4	3	2	...	3	...	...	...	...	...	1	...	...	...	...	...	
																						...	55
																						...	
26	6	2	2	1	37	8	12	12	13	13	14	17	18	33	30	32	32	34	38	27	13	2	56
14	3	1	...	1	19	3	5	8	6	6	11	10	10	21	18	19	15	17	25	15	7	...	
12	3	1	2	...	18	5	7	4	7	7	8	6	8	12	12	13	17	17	13	12	6	...	57
																						...	
1	1	...	...	...	2	3	6	4	3	1	1	3	7	4	4	5	11	12	20	12	8	...	58
					1	1	4	...	1	...	1	1	4	2	1	2	7	5	12	4	5	...	
1	1	...	...	...	1	2	2	4	2	1	...	2	3	2	3	3	4	7	8	8	3	...	59
																						...	
1	1	...	...	1	3	7	7	2	5	7	5	8	7	4	2	5	9	9	13	8	6	...	60
																						...	
1	1	...	...	1	3	4	5	2	1	3	2	5	4	3	2	3	4	5	7	4	3	...	61
																						...	
130	7	2	1	2	142	21	25	28	21	42	44	65	68	83	137	162	221	271	338	300	253	6	62
79	4	2	1	2	88	11	12	15	8	12	15	30	37	35	73	89	123	155	196	200	173	4	
51	3	...	...	...	54	10	13	13	13	30	20	35	31	48	64	73	98	116	142	100	100	2	63
																						...	
1	...	...	...	...	1	...	...	2	4	5	3	8	11	8	8	19	10	21	24	23	12	1	64
																						...	
1	...	...	...	...	1	...	...	2	2	2	3	6	7	...	1	8	7	11	7	13	11	7	65
																						...	
1	...	...	...	1	2	...	1	...	1	...	1	1	4	3	2	10	7	9	18	10	21	...	66
																						...	
1	...	...	...	1	2	...	1	...	1	...	1	1	2	3	2	7	4	7	12	9	15	...	67
																						...	
																						...	68
																						...	

VITAL STATISTICS OF MICHIGAN, 1899

TABLE II.—Concluded.—Deaths in Michigan by ages, counties

Counties.	Sex.	Total deaths at all ages, 1899.*	Still-born.	Ages in years.				
				Under 1 year.†	1.	2.	3.	4.
Wayne.....	Total.....	5,652	357	1,306	266	123	66	57
	Males.....	2,939	211	757	143	70	27	16
	Fem.....	2,712	144	639	123	53	39	41
	Unk.....	2	2					
Wexford.....	Total.....	236	11	45	18	7	8	2
	Males.....	126	5	24	9	3	1	1
	Fem.....	110	6	21	9	4	7	1

*Stillbirths included.

†Stillbirths not included.

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Ages of decedents, 1899.																				Classification No.				
Ages in years under five.					Ages by five-year periods.																			
0.	1.	2.	3.	4.	0 to 4.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.		75 to 79.	80 +	Unk.	
1	1				1				1		1			2		1	1			1	6	1		60
1	1				1				1		1		1		1	1	1			1	2	1		
																					4	1		61
																					2			
1					1								1				2			1	1			62
1					1								1				1							
1																								63
1					2	1							1				1							
1			1		2	1																		64
1					1			1		1														
11					11				4		1	3		1		1			1	5	3	1		65
6					6				2		1	2		1		1				2	2			
5					5				2		1	1							1	3	1	1		66
2					2						2		3	1				1	1		1	2		
2					2						1			3	1			1	1		1	1		67
5					10		1		1							1						4		
5					5				1							1						1		68
5					5		1															3		
12	6	3	6	6	33	12		2	3	3	4		4				1	2			1	1		69
11	1	1	2	5	20	8		1	2	1	1		3				1	1			1	1		
1	5	2	4	1	13	4		1	1	2	3		1					1						70
297	72	21	4	10	404	5	3	3		2	2	3				4	4	1	6	8	10	15	1	
166	41	10	1	3	221	5	1				1	2				1	2		3	3	4	3		71
131	31	11	3	7	183		2	3		2	1	1				3	2	1	3	5	6	12	1	
2	3				5	2	1	5	5	4	4	5	7	11	8	26	24	39	48	54	66			72
1	2				3	2	1	1	3	2	1	2	5	8	4	16	15	16	23	25	33			
1	1				2		4	2	2	3	3	2	3	2	4	10	9	23	25	29	33			73
129	38	24	11	8	210	5	1	4	1		2	2	3	1	4	3	8	3	10	13	17			
82	22	10	5	4	124	1		3	1		1	2	1	1	1	2	2	1	6	10	13			74
46	16																							

VITAL STATISTICS OF MICHIGAN, 1899

TABLE III.—Causes of death in Michigan, by months.

Classification No.	Causes of death, 1899.	Sex.	Total deaths, 1899.	Months of death, 1899.											
				Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
	ALL CAUSES.....	{ Total. Males. Fem.. Unk..	33,075 18,025 15,605 45	3,269 1,764 1,601	3,828 1,987 1,835 6	3,354 1,811 1,541 2	3,054 1,655 1,391 8	2,594 1,334 1,258 2	2,242 1,197 1,039 6	2,439 1,326 1,111 2	2,788 1,484 1,297 7	2,753 1,526 1,226 1	2,479 1,347 1,127 5	2,366 1,294 1,068 4	2,569 1,296 1,211 2
	Stillbirths. (Included in above)	{ Total. Males. Fem.. Unk..	1,386 785 562 39	141 88 53	124 71 48 5	131 73 56 2	124 69 48 7	107 57 48 2	102 50 47 5	112 52 58 2	105 61 38 6	91 56 34 1	119 67 48 4	110 69 38 3	120 72 46 2
1	Typhoid fever.....	{ Total. Males. Fem..	523 285 238	22 13 9	25 31 11	21 30 11	30 16 14	24 19 14	28 19 9	33 20 13	47 23 24	73 40 33	106 55 51	61 34 27	43 21 22
1a	Typhomalarial fever.....	{ Total. Males. Fem..	57 28 29	6 2 4	1 3	6 3 3	5 3 3	3 2 2	2 1 2	6 4 2	4 3 1	3 2 1	10 6 4	5 3 2	6 1 5
2	Typhus fever.....	{ Total. Males. Fem..	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....
3	Scurvy.....	{ Total. Males. Fem..	16 5 11	2 2	4 1 3	..... ..... .....	2 2	..... ..... .....	1 1	1	1 1	2 1 1	1 1	1 1	1 1
4	Smallpox.....	{ Total. Males. Fem..	6 4 2	1 1	 2	3 1	1 1 .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	1 1
5	Measles.....	{ Total. Males. Fem..	187 88 99	9 5 4	16 7 9	11 10 1	23 15 13	15 12 3	23 13 10	10 4 6	9 1 8	2 2	12 24 6	24 16 18	33 13 19
6	Scarlet fever.....	{ Total. Males. Fem..	144 71 73	12 6 6	8 3 5	13 9 4	6 4 4	7 3 4	8 4 4	9 6 3	10 5 5	8 5 3	20 9 11	18 9 10	25 11 14
7	Whooping cough..	{ Total. Males. Fem..	238 120 118	15 8 7	20 12 8	22 8 14	17 7 10	15 5 9	14 9 6	15 10 9	19 10 16	34 18 11	26 15 11	15 10 5	17 12 5
8a	Diphtheria.....	{ Total. Males. Fem..	296 125 171	27 12 15	25 13 12	16 5 11	15 4 11	19 10 9	13 8 5	19 13 8	16 5 5	22 11 13	41 17 24	40 14 26	49 17 32
8b	Membranous croup.....	{ Total. Males. Fem..	86 46 40	8 6 2	10 4 6	5 4 1	4 2 2	3 2 1	1	3 2 2	3 1 1	6 2 2	13 8 5	13 5 8	17 7 10
8c	Croup.....	{ Total. Males. Fem..	53 35 18	5 1 4	7 5 2	3 3	2 2	2 2	2 1 1	2 1	4 1	4 2 2	6 4 2	9 4 5	8 6 2
9	Influenza.....	{ Total. Males. Fem..	1,673 845 828	400 205 195	690 342 348	325 167 158	143 73 70	33 14 19	22 11 11	11 7 4	5 4 1	8 5 3	8 3 5	8 4 4	20 10 10
10	Miliary fever.....	{ Total. Males. Fem..													
11	Asiatic cholera....	{ Total. Males. Fem..													

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Ages of decedents, 1899.

Ages in years under five.					Ages by five-year periods.																		Classification No.
0.	1.	2.	3.	4.	0 to 4.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 +	Unk.	
7,737	1222	611	392	272	10,234	846	658	1030	1313	1206	1079	1152	1145	1141	1223	1513	1693	2079	2272	2155	2852	84	
4,413	676	353	192	133	5,767	438	347	534	624	525	465	560	558	646	668	842	908	1115	1267	1220	1470	62	
3,279	546	258	200	139	4,422	408	311	496	689	681	614	583	587	485	555	671	785	964	1005	935	1382	22	
45					45																		
1386					1386																		
785					785																		
562					562																		
39					39																		
1	5	2	7	3	18	28	54	86	81	62	57	34	26	19	12	16	10	11	2	4	3		
1	3	2	2	2	10	13	26	32	46	40	33	27	13	12	7	6	8	7	2	2	1		
	2		5	1	8	15	28	54	35	22	24	7	13	7	5	10	2	4		2	2		
2		2			4	4	7	2	6	6	2	8	5	3	3	3		4					
1					1	1	3	2	2	3	2	3	4	2	1	3		1					
1		2			3	3	4		4	3		5	1	1	2			3					
5		1	1	1	8		2		1	1				1		2	1						
2			1		3											2							
3		1		1	5		2		1	1				1			1						
					1	1				1	2									1			
					1					1	2									1			
50	56	18	7	7	138	22	7	8		3	1	4	2	1								1	
31	22	9	3	3	68	10	3	5		1												1	
19	34	9	4	4	70	12	4	3		2	1	4	2	1									
11	20	25	21	10	87	38	16	5	2	1	1												
3	10	15	10	3	41	19	6	4			1												
8	10	10	11	7	46	19	4	1	2	1													
141	50	20	12	8	231	7																	
67	34	8	6	1	116	4																	
74	16	12	6	7	115	3																	
16	35	39	30	31	151	87	29	16	7	2	1	2		1									
12	15	19	15	11	72	37	8	4	4														
4	20	20	15	20	79	50	21	12	3	2	1	2		1									
7	10	12	20	7	56	24	5															1	
5	4	7	8	7	31	11	3															1	
2	6	5	12		25	13	2																
16	13	10	2	5	46	6	1																
12	8	6	1	2	29	5	1																
4	5	4	1	3	17	1																	
227	38	13	14	7	295	20	16	27	29	41	25	33	35	40	55	77	119	134	206	197	322	2	
142	19	6	6	2	175	9	8	18	13	17	14	16	21	20	32	42	53	59	98	102	146	2	
85	19	7	4	5	120	11	8	9	16	24	11	17	14	20	23	35	66	75	108	95	176		

CAUSES OF DEATH

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ages and sex, during the year 1899. (Stillbirths included.)

Ages of decedents, 1899.																							Classification No.	
Ages in years under five.					Ages by five-year periods.																			
0.	1.	2.	3.	4.	0 to 4.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 to +.	Unk.		
10	1	1	1	3	16	12	18	15	25	38	35	38	47	60	77	100	113	107	111	81	68	4	97	
1	1	1	1	1	4	7	7	9	10	16	12	19	21	34	44	67	68	66	83	50	56	2		
9	1			2	12	5	11	6	15	22	23	19	26	26	33	33	45	41	28	31	12	2		
7	1				8			3	2	3	1	1	1	3	6	9	5	13	13	12	15		98-100	
3	1				4			1	1	1	1	1	1	2	4	5	3	10	11	9	7			
4					4			2	1	2			1	1	2	4	2	3	2	3	8			
																	1	1	1				101	
																	1	1	1					
																	1							
5	1				6		1			3	2	1	3	4	3	6	12	17	17	35	50		102	
3	1				4		1			2	1	1	1	2	3	6	11	15	17	33	46			
2					2					1	1		2	2			1	2		2	4			
										1			1	1	1	3	2	7	13	16	15		103-106	
										1			1	1	1	3	2	7	13	16	15			
										1			1	1	1	3	2	7	13	16	15			
								1	3	1	1	4	8	4	6	2	2		1	1	1		111	
								1	3	1	1	4	8	4	6	2	2		1	1	1			
							1	1	4	6	4	4	2	2		1		1	1		1		109-110, 112	
							1	1	4	6	4	4	2	2		1		1	1		1			
								1	3	3	6	5		2			3	3	1		2		113	
								1	3	3	6	5		2			3	3	1		2			
								5	10	9	9	8	5	2	4	2							107, 108, 114, 115	
								5	10	9	9	8	5	2	4	2								
								5	18	26	31	32	25	1									116-118, 123, 124	
								5	18	26	31	32	25	1										
								13	60	55	39	30	22	2									119, 120, 122	
								13	60	55	39	30	22	2										
								10	18	13	12	12	4										121	
								10	18	13	12	12	4											
19	1	1	1	1	22		1	2	6	4	3	8	1	3	2	7	9	10	3	11	4	1	125	
10					10			1	4	2	3	4	1	3		5	4	5		5	2			
9	1	1	1	1	12		1	1	2	2		4			2	2	5	5	3	6	2	1		
								2			1	2		1		5	1	14	13	10	28	41	1	126
								2			2		1			3	1	6	6	8	19	19	1	
										1					2		8	7	2	9	22			
																							127	
4		1	1		6	1			2	1	1			3	2	1	3	3	3	2	5		128	
3		1			4	1			1		1			3	1	1	2		2	2	3			
1			1		2				1	1					1		1	3	1		2			

VITAL STATISTICS OF MICHIGAN, 1899

TABLE III.—Continued.—Causes of death in Michigan, by months.

Classification No.	Causes of death, 1899.	Sex.	Total deaths, 1899.	Months of death, 1899.											
				Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
25a	Cancer—mouth...	Total..	18	3	1	1	1	1	1	1	3	2	1	2	1
		Males..	12	3	1	1	1	1	1	1	2	1	1	2	1
		Fem..	6						1		1	1	1		1
25b	Cancer—stomach or liver.....	Total..	481	33	45	42	43	33	36	44	41	43	45	40	36
		Males..	268	23	19	19	19	17	20	25	25	29	24	25	23
		Fem..	213	10	26	23	24	16	16	19	16	14	21	15	13
25c	Cancer—intes- tines or rectum	Total..	93	6	6	6	7	6	6	10	9	7	6	10	14
		Males..	43	5	1	3	1		4	2	4	3	4	7	9
		Fem..	50	1	5	3	6	6	2	8	5	4	2	3	5
25d	Cancer—uterus..	Total..	160	12	11	13	10	13	10	8	10	16	14	26	17
		Males..													
		Fem..	160	12	11	13	10	13	10	8	10	16	14	26	17
25e	Cancer—breast...	Total..	92	5	5	8	6	6	13	4	14	8	9	7	7
		Males..	1		1										
		Fem..	91	5	4	8	6	6	13	4	14	8	9	7	7
25f	Cancer—skin....	Total..	36	2	7	9	9	5	9	10	8	7	5	12	13
		Males..	74	2	6	7	8	5	7	6	7	7	4	8	7
		Fem..	22		1	2	1		2	4	1		1	4	6
25g	Cancer—other organs.....	Total..	394	35	39	37	43	31	29	33	26	41	29	26	30
		Males..	162	14	15	12	22	10	10	15	12	19	15	10	8
		Fem..	232	21	24	25	21	21	19	18	14	22	14	16	22
26-27	Rheumatism....	Total..	276	22	19	28	26	36	24	15	22	24	23	12	25
		Males..	149	10	10	12	15	24	10	7	12	12	13	6	18
		Fem..	127	12	9	16	11	12	14	8	10	12	10	6	7
28	Diabetes.....	Total..	224	24	27	15	21	16	15	15	19	17	16	21	18
		Males..	141	11	15	12	14	12	10	6	15	11	10	12	13
		Fem..	83	13	12	3	7	4	5	9	4	6	6	9	5
29	Exophthalmic goitre.....	Total..	24	1	2	1	2	4	2	3			6	2	1
		Males..	6				1			2			2	1	
		Fem..	18	1	2	1	1	4	2	1			4	1	1
30	Addison's disease	Total..	11	1	1			2		3	1	1		2	
		Males..	4					1		1	1			1	
		Fem..	7	1	1			1		2		1		1	
31	Luekemias....	Total..	28		2	5	3	1		1	1	5	5	3	2
		Males..	11		1	2	1	1				2	3	1	
		Fem..	17		1	3	2			1	1	3	2	2	2
32	Anemia, chlorosis	Total..	194	14	16	22	15	19	13	16	26	17	15	10	11
		Males..	83	5	10	10	9	2	7	7	11	5	7	6	4
		Fem..	111	9	6	12	6	17	6	9	15	12	8	4	7
33	Other general diseases.....	Total..	2			1							1		
		Males..	1			1									
		Fem..	1										1		
34	Alcoholism, acute and chronic....	Total..	68	7	5	5	7	4	5	5	8	6	6	5	4
		Males..	62	6	3	5	7	4	5	5	7	6	5	5	4
		Fem..	6	1	2						1		1	1	
35-37	Chronic poison- ings.....	Total..	20	2	2		3	3	2	1	1	5			1
		Males..	9	1			1		2			4			1
		Fem..	11	1	2		2	3		1	1	1			
38	Encephalitis....	Total..	145	18	13	14	16	19	13	10	9	11	12	10	9
		Males..	92	9	11	9	13	8	8	3	4	8	4	7	8
		Fem..	53	9	2	5	3	2	5	7	5	3	8	3	1

CAUSES OF DEATH

25

ages and sex, during the year 1899. (Stillbirths included.)

Ages of decedents, 1899.																				Classification No.			
Ages in years under five.					Ages by five-year periods.																		
0.	1.	2.	3.	4.	0 to 4.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.		75 to 79.	80 +	Unk.
													1	1		1	2	3	4	2	2	2	25a
												1	1		1	2	2	1	3	2	1	1	
																		2	1				25b
1			1		2			1	2	2	8	26	29	34	48	77	73	74	50	35	18	2	
1			1		2			1	2	1	6	19	16	11	33	43	43	36	32	21	12		25c
							1		1	1	4	4	6	8	8	11	19	6	7	12	4	1	
							1		1	1	4	1	3	3	5	6	2	7	5	6	3		25d
									1	7	6	6	24	30	15	19	20	13	12	3	3		
									1	1	7	6	6	24	30	15	19	20	13	12	3		25e
										2	2	4	8	8	15	11	6	20	5	4	7		
										1	1	2	1	2	4	8	9	9	12	10	11	24	25f
					2				1	1	2	1	2	4	8	8	7	9	4	6	18		
					2												1	2	3	6	5	5	25g
			1	1	2	4	2	5	5	15	17	17	17	17	38	37	43	35	63	47	30	28	26-27
			1	1	2	4	1	2	8	6	6	6	5	14	14	16	18	21	24	18	14		
1		1	1		3	17	15	20	7	7	10	9	8	11	19	22	18	34	33	24	19		28
1		1	1		3	12	8	5	4	4	4	4	5	8	14	10	18	17	15	10			
						5	7	12	2	3	6	5	4	6	11	8	8	16	16	9	9		29
1		1	2	2	6	11	13	15	9	5	5	5	9	11	8	22	18	25	26	15	19		30
1		1	1	1	1	3	8	10	8	5	3	3	5	5	5	13	14	12	15	7			
					3	3	3	7	4	2	2	4	6	3	8	5	12	12	3	4	2		31
																							32
																							33
																							34
																							35-37
																							38
44	17	12	5	3	81	9	8	7	4	9	6	2	2	2	2	2	1	2	2	2	1	1	
29	9	11	4	3	56	2	4	5	2	4	4	2	4	2	2	7	2	1	2	2	1	1	
15	8	1	1		25	1	4	2	2	5	2		2		5								

TABLE III.—Continued.—Causes of death in Michigan, by months,

Classification No.	Causes of death, 1899.	Sex.	Total deaths, 1899.	Months of death, 1899.											
				Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
142e	Firearms.....	Total. Males. Fem..	53 46 7	5 5 7	2 2 1	4 3 1	6 5 1	2 2 1	2 2 1	7 6 1	3 3 1	1 1 1	6 5 1	9 7 2	6 5 1
142f	Cutting instru- ments.....	Total. Males. Fem..	15 10 5	1 1 5	2 2 1	1 1 1	2 1 1	3 1 2	3 2 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1
142g	Fall from height.	Total. Males. Fem..	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1
142h	Crushing.....	Total. Males. Fem..	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1
142i	Other methods...	Total. Males. Fem..	13 11 2	1 1 1	1 1 1	1 1 1	4 3 1	2 2 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1
	<i>B. Accidental...</i>	Total. Males. Fem..	1,576 1,247 329	110 88 22	102 82 20	103 77 26	122 89 33	121 93 28	148 123 25	169 139 30	176 140 36	160 125 35	120 96 24	123 104 19	122 91 31
143	Fractures.....	Total. Males. Fem..	176 131 45	20 14 6	9 8 1	13 9 4	16 11 5	10 7 3	13 9 4	18 13 5	15 11 4	27 22 5	7 6 1	15 12 3	13 9 4
144	Dislocations.....	Total. Males. Fem..	22 14 8	2 2 2	3 2 1	3 1 3	4 1 1	1 1 1	1 1 1	3 3 1	1 1 1	1 1 1	3 3 1	2 2 1	2 1 1
145a	Gunshot.....	Total. Males. Fem..	66 61 5	3 3 5	3 3 5	3 3 5	3 3 5	3 3 5	3 3 5	5 5 5	8 8 5	5 4 1	15 12 3	11 11 1	4 3 1
145b	Lightning.....	Total. Males. Fem..	15 12 3	1 1 3	1 1 3	1 1 3	2 1 1	2 2 1	4 3 1	7 6 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1
145c	Mining accidents	Total. Males. Fem..	48 48 5	5 5 5	5 5 5	2 2 5	4 4 5	2 2 5	4 4 5	5 5 5	4 4 5	5 5 5	7 7 5	3 3 5	7 7 5
145d	Railroad acci- dents.....	Total. Males. Fem..	177 161 16	8 6 2	17 17 2	8 8 2	12 10 2	18 18 2	15 15 2	16 13 3	16 15 1	17 15 2	16 14 2	17 16 1	17 14 3
145e	Vehicles and horses.....	Total. Males. Fem..	64 59 5	2 2 5	2 2 5	1 1 5	7 6 5	6 6 5	4 4 5	9 9 5	8 7 5	14 12 2	5 5 2	3 3 2	3 3 2
146a	Fire (burn).....	Total. Males. Fem..	120 49 71	9 5 4	12 3 9	14 7 7	10 3 7	6 2 4	8 2 6	5 1 4	14 6 8	9 3 6	4 3 6	16 11 5	13 6 7
146b	Hot liquid (scald)	Total. Males. Fem..	30 18 12	2 1 1	4 3 1	1 1 1	3 2 1	2 2 1	5 2 3	1 1 3	2 1 2	1 1 2	3 2 1	4 4 1	2 1 1
146c	Corrosive sub- stance.....	Total. Males. Fem..	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1
147a	Sunstroke.....	Total. Males. Fem..	9 7 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	2 2 1	3 2 1	3 2 1	1 1 1	1 1 1	1 1 1	1 1 1

VITAL STATISTICS OF MICHIGAN, 1899

TABLE III.—Continued.—Causes of death in Michigan, by months.

Classification No.	Causes of death, 1899.	Sex.	Total deaths, 1899.	Months of death, 1899.											
				Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
60	Embolism.....	Total.	16	2	3	1	1	.....	1	2	2	.....	.....	1	1
		Males.	7	.....	1	.....	1	.....	.....	.....	1	2	.....	1	1
		Fem..	9	2	2	1	.....	.....	1	2	1	.....	.....	.....	.....
61	Varices, hemor- rhoids.....	Total.	6	.....	1	.....	.....	.....	2	1	1	.....	.....	.....	1
		Males.	2	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....
		Fem..	4	.....	1	.....	.....	.....	1	.....	1	.....	.....	.....	1
62	Phlebitis.....	Total.	4	1	.....	1	.....	1	.....	.....	1	.....	.....	.....	.....
		Males.	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
		Fem..	3	1	.....	.....	.....	1	.....	.....	1	.....	.....	.....	.....
63	Lymphangitis....	Total.	5	.....	.....	.....	.....	.....	.....	3	.....	.....	1	1	.....
		Males.	5	.....	.....	.....	.....	.....	.....	3	.....	.....	1	1	.....
		Fem..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
64	Other lymphatic diseases.....	Total.	11	.....	.....	.....	1	.....	3	3	1	2	.....	1	.....
		Males.	7	.....	.....	.....	1	.....	2	2	1	1	.....	.....	.....
		Fem..	4	.....	.....	.....	.....	.....	1	1	.....	1	.....	1	.....
65	Hemorrhage.....	Total.	31	7	4	6	.....	1	3	1	.....	3	.....	.....	6
		Males.	16	4	1	3	.....	1	.....	.....	.....	2	.....	.....	3
		Fem..	15	3	3	3	.....	.....	1	1	.....	1	.....	.....	3
66	Other circulatory diseases.....	Total.	13	1	.....	1	2	1	4	1	.....	2	.....	1	.....
		Males.	6	.....	.....	.....	1	.....	2	1	.....	1	.....	1	.....
		Fem..	7	1	.....	1	1	1	2	.....	.....	1	.....	.....	.....
67	Diseases of the nose.....	Total.	17	3	4	.....	2	.....	.....	.....	1	1	1	3	2
		Males.	8	2	1	.....	1	.....	.....	.....	.....	.....	.....	3	1
		Fem..	9	1	3	.....	1	.....	.....	.....	1	1	1	.....	1
68	Disease of larynx and thyroid....	Total.	66	15	5	4	9	1	1	3	4	7	5	6	6
		Males.	40	10	3	4	5	.....	1	3	3	4	2	5	.....
		Fem..	26	5	2	.....	4	1	.....	.....	1	3	3	1	6
69	Acute bronchitis	Total.	471	70	78	76	59	34	22	11	16	11	19	38	37
		Males.	246	35	38	48	35	15	11	1	9	7	10	13	24
		Fem..	225	35	40	28	24	19	11	10	7	4	9	25	13
70	Chronic bron- chitis.....	Total.	314	39	41	38	31	25	16	16	15	22	24	17	30
		Males.	160	19	27	16	13	12	7	10	6	13	13	8	16
		Fem..	154	20	14	22	18	13	9	6	9	9	11	9	14
71	Broncho-pneu- monia.....	Total.	287	27	51	64	34	26	7	9	8	5	14	19	23
		Males.	162	17	26	37	20	16	3	5	4	4	5	11	14
		Fem..	125	10	25	27	14	10	4	4	4	1	9	8	9
72	Pneumonia.....	Total.	2,192	337	488	356	272	149	70	44	49	57	102	117	157
		Males.	1,226	170	264	202	157	81	40	24	37	69	133	77	78
		Fem..	966	167	224	148	115	68	30	20	18	20	33	44	79
73	Pleurisy.....	Total.	134	16	22	20	14	10	11	5	8	8	5	8	7
		Males.	68	9	13	14	7	3	7	3	1	2	4	2	3
		Fem..	66	7	9	6	7	7	4	2	7	6	1	6	4
74	Congestion of lungs.....	Total.	184	21	26	33	15	17	9	7	4	7	11	12	22
		Males.	89	9	8	16	10	6	3	5	1	2	6	11	12
		Fem..	94	12	18	17	5	11	6	2	2	5	5	1	10
75	Gangrene of lungs.....	Total.	12	.....	2	1	1	1	.....	1	.....	1	2	1	2
		Males.	6	.....	1	.....	.....	1	.....	1	.....	.....	1	1	1
		Fem..	6	.....	1	1	1	.....	.....	.....	.....	1	1	.....	1
76	Asthma and emphysema....	Total.	158	21	19	21	19	9	6	13	4	9	13	13	11
		Males.	78	15	10	10	9	3	3	5	2	7	6	4	4
		Fem..	80	6	9	11	10	6	3	8	2	2	7	9	7

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Ages of decedents, 1899.

Ages of decedents, 1890.																								Classification No.
Ages in years under five.					Ages by five-year periods.																			
0.	1.	2.	3.	4.	0 to 4.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 +.	Unk.		
1	1				1				1		1		2		1	1	1		1	6	1		60	
1					1						1		1		1		1		1	2	1			
										1										4	1		61	
										1				1				1	1	2				
1					1								1										62	
1					1								1				1							
1			1		2												1						63	
1			1		2												1							
1				1	1				1		1			1	2				4				64	
1				1	1				1		1			1	1			3						
				1	1				1						1			1					65	
11					11				4		1	3		1	1			1	5	3	1			
6					6				2		1	2		1	1				2	2			66	
5					5				2		1	1						1	3	1	1			
2					2						2		3	1			1	1		1	2		67	
2					2						1			3	1			1		1	1			
10					10		1		1							1					4		68	
5					5		1		1							1					1			
5					5		1														3		69	
12	6	3	6	6	33	12		2	3	3	4		4			1	2			1	1			
11	1	1	2	5	20	8		1	2	1	1		3			1	1			1	1		70	
1	5	2	4	1	13	4		1	1	2	3		1					1						
297	72	21	4	10	404	5	3		3		2	2	3			4	4	1	6	8	10	15	1	71
166	41	10	1	3	221	5	1				2	1	2			3	2	3	3	4	3			
131	31	11	3	7	183		2	3		2	1	1				3	2	1	3	5	6	12	1	72
	2	3			5	2	1	5	5	4	4	5	7	11	8	26	24	39	48	54	66			
	1	2			3	2	1	1	3	2	1	2	5	8	4	16	15	16	23	25	33		73	
	1	1			2			4	2	2	3	3	2	3	4	10	9	23	29	29	33			
129	38	24	11	8	210	5	1	4	1		2	2	3	1	4	3	8	3	10	13	17		74	
83	22	10	5	4	124	1		3	1		1	2	1	1	1	2	2	1	6	10				
46	16	14	6	4	86	4	1	1			1		2		3	1	6	2	4	7	7		75	
					13			4	7	11	2	10	13	12	9	4	6	17	10	7	4	5		
519	140	62	33	16	770	44	34	56	89	48	67	91	72	89	90	90	115	136	133	127	136	5	76	
305	79	32	14	8	438	22	18	34	59	24	38	55	41	68	55	48	66	65	66	68	58	3		
214	61	30	19	8	332	22	16	22	30	24	29	36	31	21	35	42	49	71	67	59	78	2	77	
	4	5	2	2		13		4	7	11	2	10	13	12	9	4	6	17	10	7	4	5		
	2	2			4		2	4	8		4	5	5	5	3	6	8	7	3	3	1		78	
	2	3	2	2	9		2	3	3	2	6	8	7	4	1		9	3	4	1	4			
68	13	4	1		86	2	1	3	4		5	5	7	4	2	7	8	9	17	8	14	2	79	
37	8	3	1		49	2	1	1			3	3	2	2	1	1	6	4	7	2	4	1		
30	5	1			36			2	4		2	2	5	2	1	6	2	5	10	6	10	1	80	
1					1																			
						1				2	2	1		1		1	2	1			1		81	
						1				1	2		1			1	2	1						
2		1			3	1	1	1	2		3	3	1	6	5	11	16	32	30	21	22		82	
1					1			1			2	2	1	4	2	7	4	16	13	9	16			
1		1			2	1	1		2		1	1		2	3	4	12	16	17	12	6			

VITAL STATISTICS OF MICHIGAN, 1899

TABLE IV.—Causes of death in Michigan, by counties,

[illegible]

CAUSES OF DEATH

31

ages and sex, during the year 1899. (Stillbirths included.)

Ages of decedents, 1899.

Ages in years under five.					Ages by five-year periods.																		Classification No.	
0.	1.	2.	3.	4.	0 to 4.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80	Unk.		
21	2	1	1	...	26	1	3	6	9	8	6	7	9	8	10	9	11	10	16	6	10	77		
13	1	1	...	...	15	1	1	2	3	5	3	5	4	6	8	8	9	7	12	2	6		78	
8	1	...	1	...	11	...	2	4	6	3	3	2	5	2	2	1	2	3	4	4	4			79
26	1	...	...	1	28	...	...	...	...	1	...	...	...	...	2	...	...	1	...	...	...	80		
14	1	...	...	...	15	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...		81	
12	...	...	...	1	13	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...			82
5	3	1	2	1	12	5	2	2	1	2	2	...	1	...	1	2	1	3	2	2	...	83		
2	2	...	1	...	5	3	1	2	1	2	1	...	...	...	1	1	1	2	2	1	...		84	
3	1	1	1	1	7	2	1	...	...	...	1	...	1	...	...	1	...	1	...	1	...			85
2	1	...	...	...	3	...	...	3	2	4	1	3	1	7	9	6	10	9	6	5	3	86		
2	...	...	...	...	2	...	...	...	3	1	...	...	1	4	6	6	6	5	4	4	2		87	
...	1	...	...	...	1	...	...	3	2	1	...	3	...	3	3	...	4	4	2	1	1			88
115	11	5	4	2	137	6	5	8	6	10	8	8	19	24	19	31	33	34	44	38	45	3			89
57	5	4	1	1	68	4	2	5	3	4	2	5	7	14	8	18	20	14	16	24	24	3	90	
58	6	1	3	1	69	2	3	3	3	6	6	3	12	10	11	13	13	20	28	14	21	...		91
1425	295	108	36	16	1880	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
826	162	59	20	6	1073	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	93	
599	133	49	16	10	807	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		94
...	...	...	...	...	...	24	11	9	10	11	14	14	13	14	19	22	21	57	59	61	65	...		
...	...	...	...	...	...	9	7	3	7	7	3	4	6	10	11	9	12	37	32	39	26	...	96	
...	...	...	...	...	...	15	4	6	3	4	11	10	7	4	8	13	9	20	27	22	30	...		97
28	18	9	9	2	66	1	1	1	1	...	1	3	1	4	6	6	8	10	16	25	28	...			98
12	8	3	5	2	30	...	...	...	...	...	...	...	1	...	1	5	...	3	5	6	8	14	99	
16	10	6	4	...	36	1	1	1	1	...	1	2	1	3	1	6	5	5	10	17	14	...		100
22	2	1	3	2	30	10	5	13	2	7	13	4	7	13	10	13	20	29	22	22	20	1			101
14	2	1	2	1	20	6	3	9	2	5	7	2	6	7	6	6	13	17	14	14	12	1	102	
8	...	...	1	1	10	4	2	4	...	2	6	2	1	6	4	7	7	12	8	8	8	...		103
16	4	3	3	1	27	3	2	...	4	3	4	4	3	3	3	5	3	6	9	7	2	...			104
7	1	3	1	1	13	1	1	...	2	2	3	2	1	3	2	3	1	4	5	6	2	...	105	
9	3	...	2	...	14	2	1	...	2	1	1	2	2	...	1	2	2	2	4	1	...	...		106
...	...	...	...	...	...	...	...	...	3	...	1	...	1	1	...	...	...	...	...	...	...	...		
...	...	...	...	...	...	...	...	...	1	...	1	...	...	1	...	...	...	...	...	1	...	...	108	
...	...	...	...	...	...	...	...	...	2	...	...	...	1	...	...	...	...	...	...	1	...	...		109
1	...	...	...	...	1	...	...	1	...	2	5	6	10	8	12	17	24	23	21	9	6	...		
1	...	...	...	...	1	...	...	...	1	3	5	7	6	8	10	17	13	17	5	5	...	...	111	
...	...	...	...	...	...	...	1	...	1	2	1	3	2	4	7	7	10	4	4	3	...	...		112
15	2	2	3	2	24	4	5	4	8	8	8	15	28	27	31	23	28	34	42	31	24	...			113
5	...	1	1	1	8	4	4	1	5	5	6	8	13	12	14	11	17	19	20	11	11	...	114	
10	2	1	2	1	16	...	1	3	3	3	2	7	15	15	17	12	9	15	22	20	13	...		115
19	8	4	3	1	35	29	16	17	41	27	20	24	15	9	12	19	9	14	10	6	2	1			116
13	5	3	2	1	24	12	6	7	12	5	3	4	2	5	1	10	4	10	4	4	...	1	117	
6	3	1	1	...	11	17	10	10	29	22	17	20	13	4	11	9	5	4	6	2	2	...		118
1	...	...	...	...	1	...	...	...	...	...	...	1	...	1	...	1	2	1	...	3	1	...		
1	...	...	...	...	1	...	...	...	...	...	...	1	...	1	...	1	2	1	...	3	...	...	120	
1	1	...	3	1	6	30	27	41	28	22	17	3	15	10	1	5	4	8	1	2	3	...		121
1	1	...	3	1	6	15	17	26	16	14	10	1	10	9	...	4	2	4	1	...	1	...			122
...	...	...	...	...	15	10	15	12	8	7	2	5	1	1	1	1	2	4	...	2	2	...	123	
12	2	2	1	4	24	12	3	2	5	1	3	4	8	1	5	5	7	8	7	8	7	...		124
5	3	1	1	1	12	8	2	...	3	...	...	1	4	...	2	4	1	6	4	6	3	...			125
7	2	1	...	2	12	4	1	2	2	1	3	3	4	1	3	1	6	2	3	2	4	...	126	

Classification No.	Causes of death, 1899.	Counties—Alcona																
		State.	Alcona.	Alger.	Allegan.	Alpena.	Antrim.	Arenac.	Baraga.	Barry.	Bay.	Benzie.	Berrien.	Branch.	Calhoun.	Cass.	Charlevoix.	Cheboygan.
22a	<i>Tuberculosis—</i>																	
22b	of the lungs.....	2,098	3	1	25	19	10	4	4	16	58	9	45	24	49	14	7	1
22c	of the meninges.....	142	1	4	1						4	2	3		1	1	2	1
22d	of the peritoneum.....	104				2					1				2	1		
22e	of the skin.....	2									1							
22f	of other organs.....	92		3	1				2	2	2	5	3	3	2			
22g	general.....	256		4	2	2		1	2	3		5	4	7	3	1	1	
23	Scrofula.....	20				1	1			1								
24	Syphilis.....	60										2			1		1	
25a	<i>Cancer—</i>																	
25b	of the mouth.....	18			1										1			
25c	of the stomach or liver.....	481		11	2	2	2		13	7		9	6	11	4	1	5	
25d	of the intestines or rectum.....	93		1	2	1			3	1		1	1	1			1	
25e	of the uterus.....	100		4		1				7		2	2	3	1	1	1	
25f	of the breast.....	92		1						1			1	3	1		1	
25g	of the skin.....	96		2	1	3	1		2	1		3	1	1	1	1	1	
25h	of other organs.....	394	1	8	1	1			3	9	1	18	4	14	5	3	1	
26-27	Rheumatism.....	276	1	1	1	1	2	1		5		8	3	8	3	1	1	
28	Diabetes.....	224		6	1	1		1	7	3		3	3	7	5		2	
29	Exophthalmic goitre.....	24							1			2	1	1				
30	Addison's disease.....	11												1				
31	Leukemia.....	28								2		1						
32	Anemia, chlorosis.....	194		5	1		1	2	2	3		2	1	7	1	1	2	
33	Other general diseases.....	2													1			
34	Alcoholism.....	68			1					2		4	1	1				1
35-37	Chronic poisonings.....	20				1				1								
	LOCAL DISEASES.																	
	III. DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SENSE.																	
38	Encephalitis.....	145	1	4	1	5	1			2		3	2	2	1		1	
39a	Simple meningitis.....	231			4	2			2	10		1	3	3	2		1	
39b	Cerebrospinal meningitis.....	820	4	19	1	12	3	8	7	20	14	4	4	17	3	1	2	
42	Cerebral congestion and hemorrhage.....	1,225	1	36	7	1	1	1	17	31	3	45	18	40	15	8	3	
43	Cerebral softening.....	103	1	4					3			3		2	2			
44	Paralysis.....	842		16	5	5	2	1	9	12	1	28	17	27	15	6	2	

CAUSES OF DEATH

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ages and sex, during the year 1899. (Stillbirths included.)

Ages of decedents, 1899.																							Classification No.	
Ages in years under five.					Ages by five-year periods.																			
0.	1.	2.	3.	4.	0 to 4.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 to +.	Unk.		
10	1	1	1	1	3	16	12	18	15	25	38	35	38	47	60	77	100	113	107	111	81	68	4	97
1	1	1	1	1	4	7	7	9	10	16	12	13	19	21	34	44	67	68	66	83	50	56	2	
9	1	1	1	1	2	12	5	11	6	15	22	23	19	26	26	33	33	45	41	28	31	12	2	
7	1	1	1	1	8	1	1	3	2	3	1	1	1	3	6	9	5	13	13	12	15	1	98-100	
3	1	1	1	1	4	1	1	1	1	1	1	1	1	2	4	5	3	10	11	9	7	1		
4	1	1	1	1	4	1	1	2	1	1	1	1	1	1	2	4	2	3	2	3	8	1		
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	101	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
5	1	1	1	1	6	1	1	1	1	3	2	1	3	4	3	6	12	17	17	35	50	1	102	
3	1	1	1	1	4	1	1	1	1	2	1	1	1	2	3	6	11	15	17	33	46	1		
2	1	1	1	1	2	1	1	1	1	1	1	1	2	2	1	1	2	2	2	4	1	1		
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	103-106	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	111	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	109, 110, 112	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	113	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	107, 108, 114, 115	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	116-118	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	123, 124	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	119, 120, 122	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	121	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
19	1	1	1	1	22	1	2	6	4	3	8	1	3	2	7	9	10	3	11	4	1	1	125	
10	1	1	1	1	10	1	1	4	2	3	4	1	3	1	3	5	4	8	5	5	2	1		
9	1	1	1	1	12	1	1	2	2	2	4	1	4	2	2	2	5	5	3	6	2	1		
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	126	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	127	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
4	1	1	1	1	6	1	1	1	2	1	1	1	1	3	2	1	3	3	3	2	5	1	128	
3	1	1	1	1	4	1	1	1	1	1	1	1	1	3	1	1	2	2	2	2	3	1		
1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		

VITAL STATISTICS OF MICHIGAN, 1899

TABLE III.—Continued.—Causes of Death in Michigan, by months,

Classification No.	Causes of death, 1899.	Sex.	Total deaths, 1899.	Months of death, 1899.											
				Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
129	Other diseases of skin	(Total..	18	1	1	2	.....	.....	1	4	1	1	4	1	2
		{ Males.	8	1	1	1	.....	.....	2	2	.....	2	.....	1	1
		{ Fem..	10	.....	.....	1	.....	.....	1	2	1	2	.....	1	1
130	Pott's disease....	(Total..	32	5	1	1	.....	4	3	3	5	2	1	4	3
		{ Males.	23	3	1	.....	.....	3	2	2	4	1	.....	4	3
		{ Fem..	9	2	.....	1	.....	1	1	1	1	1	.....	.....	.....
131	Chronic or cold abscess.....	(Total..	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....
		{ Males.	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....
		{ Fem..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
133	White swellings.	(Total..	6	1	.....	.....	.....	2	.....	2	1	.....	.....	.....	.....
		{ Males.	5	1	.....	.....	.....	1	.....	2	1	.....	.....	.....	.....
		{ Fem..	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
132, 134, 136	Other diseases of locomotor system	(Total..	36	1	4	3	6	2	5	1	4	.....	5	4	1
		{ Males.	23	1	3	2	2	1	4	1	3	.....	4	2	.....
		{ Fem..	13	.....	1	1	4	1	1	.....	1	.....	1	2	1
137	Malformations...	(Total..	170	9	18	20	15	12	13	19	13	9	16	12	14
		{ Males.	84	2	10	11	12	7	5	7	7	5	9	4	5
		{ Fem..	86	7	8	9	3	5	8	12	6	4	7	8	9
138a	Congenital debility	(Total..	832	66	73	73	53	82	44	72	88	87	72	56	66
		{ Males.	489	38	49	39	34	48	19	42	51	47	44	36	42
		{ Fem..	342	28	24	34	19	34	25	30	37	40	28	19	24
138b	Premature birth.	(Total..	522	51	50	56	51	45	35	38	46	46	24	42	38
		{ Males.	268	21	29	32	27	19	20	23	26	23	9	23	16
		{ Fem..	252	30	21	24	23	26	15	15	20	23	14	19	22
139	Want of care.....	(Total..	9	1	1	2	.....	1	.....	.....	.....	2	.....	1	1
		{ Males.	7	1	.....	2	.....	1	.....	.....	.....	1	.....	1	1
		{ Fem..	2	.....	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....
140	Other diseases of infancy.....	(Total..	33	1	8	4	1	2	3	1	2	3	3	3	2
		{ Males.	18	.....	6	2	1	1	2	.....	.....	2	2	2	.....
		{ Fem..	15	1	2	2	.....	1	1	1	2	3	1	1	.....
141	Senile debility....	(Total..	676	68	91	63	56	49	36	42	51	54	65	56	45
		{ Males.	311	30	36	35	22	23	20	25	18	27	26	28	21
		{ Fem..	365	38	55	28	34	26	16	17	33	27	39	28	24
142a	A. Suicide.....	(Total..	192	18	10	11	18	19	18	22	17	12	17	17	13
		{ Males.	144	17	9	8	13	14	11	18	12	7	12	13	10
		{ Fem..	48	1	1	3	5	5	7	4	5	5	5	4	3
142b	Poison.....	(Total..	53	6	2	4	4	6	3	7	7	7	2	4	1
		{ Males.	30	6	1	3	2	6	.....	4	2	2	1	2	1
		{ Fem..	23	.....	1	1	2	.....	3	3	5	5	1	2	.....
142c	Asphyxia.....	(Total..	2	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....
		{ Males.	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
		{ Fem..	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....
142d	Strangulation.....	(Total..	46	5	4	2	1	5	6	3	4	3	7	3	3
		{ Males.	40	5	4	1	1	3	5	3	4	3	5	3	3
		{ Fem..	6			1		2	1				2		
142e	Drowning.....	(Total..	9						2	3	1		1		2
		{ Males.	6						1	3	1		1		
		{ Fem..	3						1						2

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Ages of decedents, 1899.																	Classification No.						
Ages in years under five.					Ages by five-year periods.																		
0.	1.	2.	3.	4.	0 to 4.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.		60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 +	Unk.
13	1				14									1				1		2			129
5	1				6													1		1			
8	1				8									1						1			
5	1	1			7	1	3	4	1	1	1	1	1	4	2	2		1		2	1		130
4	1	1			6		2	2	1	1	1	1		3	1	2		1		1	1		
1					1	1	1	2					1	1	1					1			
																		1					131
																		1					
						1		1	1	2					1								133
						1		1	1	1					1								
										1													
4	4	1		2	11	4	4	3		3	1					2	1	3		1	3		132
4	1	1		2	8	2	2	2		2	1					1	1	1		1	2		
	3				3	2	2	1		1						1		2			1		
157	9	1	2		169		1															137	
79	2	1	1		83																		
78	7		1		86		1																
798	22	7	2	2	831	1																138a	
465	16	5	1	1	488	1																	
332	6	2	1	1	342																		
1					1																	138b	
521	1				522																		
268					268																		
251	1				252																	139	
2					2																		
9					9																		
7					7																		

VITAL STATISTICS OF MICHIGAN, 1899

TABLE III.—Continued.—Causes of death in Michigan, by months,

Classification No.	Causes of death, 1899.	Sex.	Total deaths, 1899.	Months of death, 1899.											
				Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
142e	Firearms.....	Total. Males. Fem..	53 46 7	5 5 7	2 2 1	4 3 1	6 5 1	2 2 1	2 2 1	7 6 1	3 3 1	1 1 1	6 5 1	9 7 2	6 5 1
142f	Cutting instru- ments.....	Total. Males. Fem..	15 10 5	1 1 5	2 2 1	1 1 1	2 1 1	3 1 2	3 2 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1
142g	Fall from height.	Total. Males. Fem..	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1
142h	Crushing.....	Total. Males. Fem..	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1
142i	Other methods..	Total. Males. Fem..	13 11 2	1 1 1	1 1 1	1 1 1	4 3 1	2 2 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1
	<i>B. Accidental...</i>	Total. Males. Fem..	1,576 1,247 329	110 88 22	102 82 20	103 77 26	122 89 33	121 93 28	148 123 25	169 139 30	176 140 36	160 125 35	120 96 24	123 104 19	122 91 31
143	Fractures.....	Total. Males. Fem..	176 131 45	20 14 6	9 8 1	13 9 4	16 11 5	10 7 3	13 9 4	18 13 5	15 11 4	27 22 5	7 6 1	15 12 3	13 9 4
144	Dislocations....	Total. Males. Fem..	22 14 8	2 1 1	3 2 1	3 2 1	4 1 3	1 1 3	1 1 3	3 3 1	1 1 1	1 1 1	3 3 1	2 2 1	2 1 1
145a	Gunshot.....	Total. Males. Fem..	66 61 5	3 3 5	3 3 5	3 3 5	3 3 5	3 3 5	3 3 5	5 5 5	8 8 5	5 4 1	15 12 3	11 11 3	4 3 1
145b	Lightning.....	Total. Males. Fem..	15 12 3	1 1 1	1 1 1	1 1 1	2 1 1	2 2 1	4 3 1	7 6 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1
145c	Mining accidents	Total. Males. Fem..	48 48 1	5 5 1	5 5 1	5 5 1	4 4 1	2 2 1	4 4 1	5 5 1	4 4 1	5 5 1	7 7 1	3 3 1	7 7 1
145d	Railroad acci- dents.....	Total. Males. Fem..	177 161 16	8 6 2	17 17 2	8 8 2	12 10 2	18 18 2	15 15 2	16 13 3	16 15 1	17 15 2	16 14 2	17 16 1	17 14 3
145e	Vehicles and horses.....	Total. Males. Fem..	64 59 5	2 2 5	2 2 1	1 1 1	7 6 1	6 6 1	4 4 1	9 7 2	8 7 1	12 12 1	5 5 1	3 3 1	3 3 1
146a	Fire, burn.....	Total. Males. Fem..	120 49 71	9 5 4	12 5 7	14 7 7	10 3 7	6 2 4	8 2 6	5 1 4	14 6 8	9 6 3	4 4 6	16 11 5	13 6 7
146b	Hot liquid, scald	Total. Males. Fem..	30 18 12	2 1 1	4 3 1	1 1 1	3 2 1	2 2 1	5 2 3	1 1 1	2 1 1	1 1 1	3 2 1	4 4 1	2 1 1
146c	Corrosive sub- stance.....	Total. Males. Fem..	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1
147a	Sunstroke.....	Total. Males. Fem..	9 7 2	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	2 2 1	3 2 1	3 2 1	1 1 1	1 1 1	1 1 1	1 1 1

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[illegible]

Classification No.	Causes of death, 1899.	Sex.	Total deaths. 1899.	Months of death, 1899.												
				Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
147b	Freezing	Total . Males. Fem..	11 9 2	5 3 2	2 2	3 3										1 1
148	Accidental drowning.....	Total . Males. Fem..	211 185 26	8 7 1	7 7	2 2	12 11 1	25 19 6	41 38 3	41 37 4	40 36 4	14 9 5	5 5 1	8 7 1	8 7 1	
149	Starving	Total . Males. Fem..	3 3	.....	.....	1 1	.....	.....	.....	.....	1 1	.....	1 1	.....	.....	
150	Noxious gases....	Total . Males. Fem..	17 11 6	.....	.....	3 2 1	1 1	1 1	.....	.....	2 1 1	4	1 1	2	3 1	
151	Other accidental poisons.....	Total . Males. Fem..	65 40 25	5 5	2 1	6 4 2	10 6 4	2 2	8 6 2	9 6 3	6 5 1	2 1 1	7 1 6	3 1 2	5 4 1	
152a	Other accidents..	Total . Males. Fem..	541 438 103	40 36 4	41 35 6	46 36 11	38 31 7	43 31 12	41 35 6	47 38 9	56 44 12	60 48 12	46 40 6	39 32 7	44 33 11	
	C. Homicide.....	Total . Males. Fem..	28 14 14	.....	1 1	1 1	1 1	6 7 5	1 1	2 2	3 1 2	4 1	6 2	1 2	2 1	
152b	Homicide.....	Total . Males. Fem..	28 14 14	.....	1 1	1 1	1 1	6 1 5	1 1	2 2	3 1 2	4 1	6 2	1 2	2 1	
153	Exhaustion, ca- chexia, debility	Total . Males. Fem..	373 183 190	36 17 19	42 22 20	28 19 9	34 15 19	40 22 18	34 15 19	26 9 17	16 10 6	35 17 18	22 14 8	25 10 15	35 13 22	
154	Fever, inflamma- tion.....	Total . Males. Fem..	44 29 15	2 2	4 2 2	2 2	9 7 2	6 3 3	6 4 2	1 1	3 2 1	2 2	1 5	6 2	2	
155a	Dropsy	Total . Males. Fem..	277 125 152	28 11 17	37 18 19	30 13 17	24 11 13	20 12 13	24 12 12	26 14 12	15 7 8	19 14 11	15 8 10	20 11 9	19 11	
155b	Heart failure.....	Total . Males. Fem..	346 174 172	37 19 18	24 12 12	42 19 23	43 22 21	23 19 13	19 4 15	30 19 11	20 13 7	16 11 5	23 11 12	28 13 15	41 21 20	
156	Asphyxia cyano- sis	Total . Males. Fem..	8 4 4	.....	1 1	.....	1 1	.....	2 1 1	2 ..... .....	.....	.....	.....	1 1	.....	
157	Sudden death....	Total . Males. Fem..	3 3	.....	.....	.....	.....	1 1	.....	.....	1 1	.....	1 1	.....	.....	
158	Abdominal tumor	Total . Males. Fem..	29 2 27	1 1	5 5	7 7	3 3	1 1	3 2	2 1	1 1	2 2	2 2	1 1	1	
159	Other tumors	Total . Males. Fem..	16 6 10	2 2	3 2	3 1	1 1	1 1	2 1	2 1	3 1	.....	.....	.....	.....	
161	Unknown or not specified causes	Total . Males. Fem.. Unk..	484 267 216 1	56 32										25 19	32 15	

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ages and sex, during the year 1899. (Stillbirths included.)

Ages of decedents, 1899.																								Classification No.
Ages in years under five.					Ages by five-year periods.																			
0.	1.	2.	3.	4.	0 to 4.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 +	Unk.		
						1	1			1			3	1	1		1				2		147b	
						1	1			1			2	1	1		1				2			
1	11	6	7	4	29	23	31	33	21	9	6	10	11	5	3	4	5	6	3	2	1	9	148	
	5	5	4	2	16	21	31	31	17	9	5	8	11	5	3	4	5	6	3	2	1	7		
1	6	1	3	2	13	2		2	4		1	2										2	149	
										1										2				
										1										2			150	
																							151	
3	5	3	2		13	4	1	3	3	6	2	4	4	9	6	1	1	3	3	2			152a	
1	4	2			7	3			1	4	2	1	2	9	4	1	1	2	2	1				
2	1	1	2		6	1	1	3	2	2		3	2		2			1	1	1				
51	10	7	5	5	78	15	23	35	41	42	37	33	31	25	18	26	31	23	21	23	36	3	152b	
30	8	7	4	3	52	9	17	32	39	37	34	32	28	22	17	26	26	17	15	14	18	3		
21	2		1	2	26	6	6	3	2	5	3	1	3	3	1		5	6	6	9	18			
1		1	1	1	4		1	3	3	3	2	3	2	1	3	1			1	1			153	
1		1	1	1	2		1	1	1	1	2	2	2	1	1	1								
																							154	
18	7	1		1	27		2	1	2		2	2	1	2			2				1	2	155a	
11	6	1			18		2	1	2		1	1	1	1			1			1	1			
7	1			1	9							1	1	1			1				1			
5			1	1	7	1	1	1	3	1	2	4	8	17	13	17	24	39	51	36	51	1	155b	
3					3	1		1	1		2	2	3	6	6	8	16	30	12	27	1			
2			1	1	4		1		2	1	2	2	5	11	7	9	15	23	21	24	24			
21	1	2		2	26	2	1	1	3	2	6	7	6	9	7	12	26	28	42	42	124	2	156	
10	1	2			13	1		1	2	1	1	4		4	4	5	14	16	26	20	60	2		
11				2	13	1	1		1	1	5	3	6	5	3	7	12	12	16	22	64			
3					3					2											2		157	
2					2					2											1			
1					1																1			
																							158	
																							159	
																							160	
																							161	
																							162	
																							163	
																							164	
																							165	
																							166	
																							167	
																							168	
																							169	
																							170	

VITAL STATISTICS OF MICHIGAN, 1899

TABLE IV.—Causes of death in Michigan, by counties.

[illegible]

CAUSES OF DEATH

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during the year 1899. (Stillbirths included.)

to Keweenaw.																										Classification No.
Chippewa.	Clare.	Clinton.	Crawford.	Delta.	Dickinson.	Eaton.	Emmet.	Genesee.	Gladwin.	Gogebic.	Gd.Traverse.	Gratiot.	Hillsdale.	Houghton.	Huron.	Ingham.	Ionia.	Iosco.	Iron.	Isabella.	Jackson.	Kalamazoo.	Kalkaska.	Kent.	Keweenaw.	
254	91	340	24	304	236	439	166	565	45	213	312	415	448	1,002	393	538	502	145	46	301	644	699	101	2,011	44	
9	..	6	..	19	16	6	3	14	2	14	11	11	4	44	19	16	17	5	1	9	23	23	4	126	2	
11	1	6	..	10	3	9	2	7	..	4	6	6	3	16	4	14	5	3	..	5	10	6	2	42	..	1
..	..	..	..	..	..	4	..	3	..	..	..	2	..	..	..	..	1	..	..	1	1	..	..	2	..	1a
..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2	..	2
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2	..	3
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	4
1	1	1	..	6	..	..	..	1	..	..	4	..	4	4	2	..	..	1	..	7	1	..	1	7	..	5
..	..	2	..	5	8	1	1	..	..	..	..	2	2	15	1	2	1	..	..	1	1	1	..	4	1	6
3	..	2	..	1	6	4	..	3	..	..	2	7	4	16	3	2	2	3	..	2	6	4	3	7	..	7
..	..	..	..	1	..	..	..	3	..	2	1	1	1	4	3	6	2	3	..	1	..	5	..	13	..	8a
..	..	..	..	..	..	..	..	..	2	1	..	1	1	2	1	..	1	..	..	1	2	..	..	32	..	8b
..	..	..	..	..	..	..	..	..	1	..	2	1	..	..	..	1	..	1	..	..	1	1	..	5	..	8c
5	6	19	3	3	5	37	3	22	1	6	23	36	31	26	26	37	43	7	1	17	37	27	6	88	..	9
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	11
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	13a
..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	13b
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	13c
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	13d
1	1	2	..	2	..	1	2	..	..	..	2	4	3	2	3	2	1	..	1	3	1	4	1	7	1	14
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	15
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	16
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	17
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	18
..	2	3	..	..	..	4	1	3	..	..	..	3	1	..	2	1	1	1	..	1	3	7	..	10	..	19-20
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	21

CAUSES OF DEATH

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by counties, during the year 1899. (Stillbirths included.)

to Keweenaw.

Chippewa.	Clare.	Clinton.	Crawford.	Delta.	Dickinson.	Eaton.	Emmet.	Genesee.	Gladwin.	Gogebic.	Gd.Traverse.	Gratiot.	Hillsdale.	Houghton.	Huron.	Ingham.	Ionia.	Iosco.	Iron.	Isabella.	Jackson.	Kalamazoo.	Kalkaska.	Kent.	Keweenaw.	Classification No.
22	4	21	1	22	7	33	14	36	5	12	18	29	31	66	30	26	38	5	5	30	29	53	4	122	1	22a
3	..	4	..	2	..	2	1	1	..	..	2	2	..	16	2	1	..	..	..	..	2	1	1	12	..	22b
1	..	3	..	1	..	..	..	..	..	3	3	1	..	2	1	..	2	..	..	2	2	2	..	11	..	22c
..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	22d
1	..	2	..	1	..	1	..	1	..	..	2	1	..	1	..	3	1	..	1	..	1	2	..	4	..	22e
..	..	3	..	6	3	3	3	4	..	2	3	4	4	9	2	6	4	..	..	3	4	10	..	21	..	22f
..	1	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	1	..	..	1	..	..	..	4	..	23
2	..	..	..	1	1	..	..	..	..	..	1	..	..	..	..	..	1	..	1	..	1	1	..	3	..	24
..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	2	..	2	..	25a
1	1	4	..	3	3	7	..	6	..	1	4	1	6	14	6	8	8	1	1	2	12	6	2	19	1	25b
..	..	1	..	..	..	5	..	4	..	..	..	1	1	2	1	1	2	2	..	1	4	4	..	..	..	25c
..	..	3	1	1	1	2	2	4	1	..	..	1	2	1	1	1	1	1	..	1	8	5	2	10	..	25d
..	..	1	..	1	..	1	..	1	..	1	1	1	5	1	1	..	..	..	..	1	1	3	..	4	..	25e
..	..	1	..	1	1	1	..	3	..	..	..	3	1	1	2	3	..	..	..	3	1	2	..	8	..	25f
..	4	7	1	1	1	4	1	8	..	1	6	3	11	3	3	8	6	..	..	2	6	8	1	28	..	25g
4	1	3	..	2	..	4	..	7	..	..	3	5	5	1	6	9	5	1	1	1	6	6	1	11	..	26-27
1	..	1	..	..	..	1	1	8	..	..	..	2	9	3	2	3	4	..	..	1	9	6	2	10	..	28
..	..	1	..	..	..	..	..	1	..	1	..	..	1	1	..	1	..	..	..	..	1	..	..	1	..	29
..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	3	..	..	..	..	30
..	..	..	..	..	..	..	1	..	..	1	..	..	1	1	..	..	..	..	..	1	..	3	..	2	..	31
..	..	2	..	..	1	2	1	1	1	1	2	3	4	3	4	2	2	..	..	..	5	6	..	10	..	32
..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	33
4	..	..	..	1	1	..	..	..	..	1	..	..	1	6	1	1	1	..	..	..	2	2	..	5	..	34
..	..	..	..	1	..	..	..	1	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	3	..	35-37
1	2	2	..	1	1	2	1	1	..	2	..	3	2	2	..	1	4	2	..	1	7	5	..	12	..	38
2	4	2	..	1	2	2	1	1	..	2	2	..	3	14	..	2	2	..	1	..	5	4	1	24	..	39a
..	1	2	..	9	3	5	4	9	..	3	2	13	3	117	5	6	17	2	..	19	11	9	2	80	4	39b
2	3	18	..	4	..	20	8	27	3	4	10	12	26	13	15	18	20	1	..	7	26	47	3	69	2	42
..	..	1	..	1	..	2	..	1	..	..	..	2	2	3	..	3	4	1	..	1	5	6	..	2	..	43
4	1	7	..	3	2	24	6	21	..	..	8	11	17	3	5	28	17	3	..	8	24	11	3	57	1	44

TABLE IV.—Continued.—Causes of death in Michigan.

Classification No.	Causes of death, 1899.	Counties—Alcona												
		State.	Alcona.	Alger.	Allegan.	Alpena.	Antrim.	Arenac.	Baraga.	Barry.	Bay.	Benzie.	Berrien.	Branch.
45	General paralysis of insane ..	116	..	1	..	2	1	..	1	2	..	..	..	4
46	Other forms of insanity.....	75	..	..	..	2	..	..	..	..	..	..	..	2
47	Epilepsy	132	..	2	1	1	..	..	1	2	..	1	3	2
48	Convulsions	10	..	..	..	..	..	..	..	..	..	..	..	2
49	Convulsions of infants.....	464	..	6	4	1	..	2	..	11	3	8	4	4
50	Tetanus	20	..	..	1	..	..	..	..	1	..	..	1	1
40-41, 51-54	Other nervous diseases.....	385	1	..	5	6	3	..	1	2	7	2	12	4
IV. DISEASES OF THE CIRCULATORY SYSTEM.														
55	Pericarditis.....	106	..	1	1	..	2	..	..	2	1	..	1	3
56	Endocarditis.....	107	..	2	..	..	..	1	1	2	..	3	1	1
57	Organic heart disease.....	2,227	1	2	39	9	20	9	2	22	54	6	45	56
58	Angina pectoris	169	..	2	..	3	..	..	4	8	1	6	6	4
59	Diseases of the arteries	90	..	2	1	..	..	..	..	..	..	..	2	1
60	Embolism.....	16	..	..	..	..	1	..	1	1	..	1	..	..
61	Varices, hemorrhoids.....	6	..	..	..	..	..	..	..	1	..	..	..	..
62	Phlebitis.....	4	..	..	..	1	..	..	..	..	..	..	..	..
63	Lymphangitis	5	..	..	..	..	..	..	..	2	..	..	..	..
64	Other lymphatic diseases.....	11	..	..	..	..	..	..	..	..	..	..	..	..
65	Hemorrhage.....	31	..	1	..	..	..	..	1	1	..	..	..	..
66	Other circulatory diseases...	13	..	..	..	..	..	1	..	..	..	..	..	..
V. DISEASES OF THE RESPIRATORY SYSTEM.														
67	Diseases of the nose.....	17	..	..	..	..	..	..	..	2	..	..	..	1
68	Diseases of larynx and thyroid	66	..	1	1	..	..	1	..	..	1	2	1	..
69	Acute bronchitis	471	1	1	9	10	6	..	2	17	2	5	..	6
70	Chronic bronchitis	314	1	..	10	3	3	3	..	2	4	..	8	5
71	Broncho-pneumonia.....	287	..	1	3	1	1	5	..	2	5	..	3	3
72	Pneumonia.....	2,192	5	3	45	13	10	10	3	21	53	5	35	26
73	Pleurisy.....	134	..	3	..	1	..	..	1	1	1	3	1	1
74	Congestion of lungs.....	184	..	5	1	..	1	..	2	7	..	5	1	8
75	Gangrene of lungs	12	..	..	..	..	..	..	1	..	..	1	..	1
76	Asthma and emphysema.....	158	..	..	1	..	..	..	2	1	..	3	4	2
77	Other respiratory diseases ...	155	..	4	..	..	..	..	1	5	2	2	..	2

CAUSES OF DEATH

45

by counties, during the year 1899. (Stillbirths included.)

to Keweenaw.

Chippewa.	Clare.	Clinton.	Crawford.	Delta.	Dickinson.	Eaton.	Emmet.	Genesee.	Gladwin.	Gogebic.	Gd.Traverse.	Gratiot.	Hilledale.	Houghton.	Huron.	Ingham.	Irona.	Iosco.	Iron.	Isabella.	Jackson.	Kalamazoo.	Kalkaska.	Kent.	Keweenaw.	Classification
...	...	2	...	...	...	1	...	3	...	...	11	1	3	2	...	1	4	...	...	...	...	14	...	5	...	45
...	...	...	...	...	...	1	...	1	...	...	4	1	1	...	2	...	5	...	...	...	2	4	...	5	...	46
1	...	1	1	2	1	1	...	3	...	...	4	...	1	...	2	1	1	2	...	...	2	10	...	9	...	47
...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	48
6	...	5	4	5	2	3	2	...	8	3	4	1	...	27	6	6	4	3	...	4	3	5	...	17	...	49
...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	2	...	50
5	1	10	1	4	2	8	3	9	...	3	8	2	11	6	2	12	6	3	1	4	1	13	2	22	...	40-41,51-54
...	...	2	...	2	...	3	1	4	...	...	1	2	1	2	2	3	1	...	1	1	3	...	...	8	...	55
...	...	1	...	...	...	1	...	2	1	1	1	3	...	4	...	...	4	2	...	...	6	2	1	6	1	56
14	2	43	3	7	12	47	10	51	1	5	15	27	46	36	15	46	40	8	1	7	54	68	7	130	...	57
2	...	3	...	1	...	4	1	8	...	...	1	5	8	...	1	3	4	...	...	1	11	5	...	6	...	58
...	...	...	...	...	...	1	...	4	...	...	1	1	2	...	1	...	1	...	...	...	2	2	...	8	...	59
...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	60
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	61
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	62
...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	2	...	64
1	...	...	1	...	...	...	...	...	...	2	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	65
...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	66
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	67
1	...	1	...	1	1	...	1	...	2	...	2	1	1	5	...	...	2	...	...	2	2	1	...	3	...	68
9	2	2	...	2	2	...	3	7	1	7	3	3	3	22	6	3	2	3	...	2	4	6	1	35	3	69
1	1	...	...	2	2	4	1	6	...	1	1	9	2	9	1	3	6	2	...	1	4	2	1	19	2	70
3	...	2	1	7	6	4	3	3	2	3	3	...	1	13	3	2	1	...	...	4	1	5	...	29	...	71
19	4	34	...	21	17	28	9	23	2	21	12	36	18	58	38	34	24	11	7	20	47	38	7	119	4	72
1	1	1	...	...	...	...	...	1	...	2	2	1	...	5	1	4	3	1	...	2	5	3	...	5	...	73
...	2	2	...	...	...	2	2	6	...	...	2	1	3	7	2	5	2	1	...	4	3	4	...	22	1	74
...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	...	...	...	...	1	...	...	1	...	75
1	...	2	...	...	2	3	2	4	...	1	1	2	...	5	...	4	2	...	1	3	2	5	1	6	...	76
...	...	1	...	2	1	2	...	5	...	1	...	1	...	4	2	4	...	3	...	2	4	6	1	23	...	77

TABLE IV.—Continued.—Causes of death in Michigan,

Classification No.	Causes of death, 1899.	State.	Counties—Alcona															
			Alcona.	Alger.	Allegan.	Alpena.	Antrim.	Arenac.	Baraga.	Barry.	Bay.	Benzie.	Berrien.	Branch.	Calhoun.	Cass.	Charlevoix.	Cheboygan.
	VI. DISEASES OF THE DIGESTIVE SYSTEM.																	
78	Diseases of the mouth.....	32	...		1	...					1	...	1	...				1
79	Diseases of pharynx and esophagus.....	38	...		2	1	...			2	...		2	...		1	...	
80	Ulcer of stomach.....	72	1	...	2	...	1	...			1	...	2	...	3	1	...	
81	Other diseases of stomach....	478	1	1	5	3	2	3	1	4	19	1	9	9	15	3	5	6
82	Infantile diarrhea, gastro-enteritis.....	1,884	1	1	18	13	21	4	9	8	52	17	23	13	15	4	5	15
83	Diarrhea and enteritis.....	424	1	...	15	1	2	2	3	1	7	...	11	4	19	4	2	3
84	Dysentery.....	178	...			1	6	2	...	4	1	...	1	6	7	1	1	1
86	Hernia and intestinal obstructions.....	241	1	...	2	1	...	4	...	2	3	...	2	5	5	1	...	1
85, 87	Other diseases of the intestines.....	88	...		1	...				1	1	...			5	...		2
88	Acute yellow atrophy of liver	9	...					1	...						1	...		
90	Cirrhosis of liver.....	145	...		4	1	1	...		1	3	...	6	...	3	4	1	...
89, 91, 92	Other diseases of the liver....	342	...		6	2	1	...		3	10	2	3	10	10	4	1	2
93	Peritonitis.....	306	...	1	2	2	2	2	...	4	10	...	2	2	4	1	2	1
94	Other diseases of digestive system.....	11	...								1	...	1	1	...			
95	Iliac abscess.....	223	...		4	3	...			2	6	1	2	...	12	4	2	...
	VII. DISEASES OF THE GENITO-URINARY SYSTEM.																	
96	Acute nephritis.....	110	...	1	1	...	2	2	...	1	3	...	2	1	1	1	...	
97	Bright's disease.....	965	...		17	7	3	3	...	13	26	2	20	11	31	9	4	7
98-100	Other diseases of the kidneys	95	...				1	...			2	...	2	2	5	...		
101	Vesical calculi.....	3	...							1	...					2	...	
102	Diseases of the bladder.....	160	...		4	...				3	5	2	4	1	3	...		1
103-106	Diseases of male genital organs.....	60	...		1	1	...			1	1	...	1	2	...			
111	Uterine tumor.....	35	...								1	...	2	1	...	3	...	
109, 110, 112	Other uterine diseases.....	28	...		1	1	...			1	1	...	1	...				
113	Ovarian tumors.....	29	...		1	...												
107, 108, 114, 115	Other diseases of female genital organs.....	54	...											1	...			

CAUSES OF DEATH

57

by counties during the year 1899. (Stillbirths included.)

to Wexford.

Montcalm.	Montmorency.	Muskegon.	Newaygo.	Oakland.	Oceana.	Ogemaw.	Ontonagon.	Oscoda.	Oscoda.	Otsego.	Ottawa.	Presque Isle.	Roscommon.	Saginaw.	St. Clair.	St. Joseph.	Sanilac.	Schoolcraft.	Shiawassee.	Tuscola.	Van Buren.	Washtenaw.	Wayne.	Wexford.	Classification N
1	2	14												4	2	1	1	1	1	2	1	14	1	45	
	1	5				1								2	3				2		5	18		46	
1	1	1	1			1	2				3			4	2		2		1	2	1	4	31	1	47
											1			1	1				1				1	1	48
4	10	5	2			2	3				14			24	10	1	3	1	6	8	5	3	123	4	49
											1												7		50
3	6	1	7	3			5				6			14	7	4	5		9	5	6	10	37	1	{ 40-41, 51-54
1	2	3			1	1					2	1		3	2	3			3	1	1	3	9		55
	1		3		1						1			1	3	1	2		1	4	2	4	24		56
31	20	11	48	21	2	1	8		1	32	2			91	34	30	15	2	37	41	54	51	317	12	57
2			5			1								5	4		1		2	2	1		15		58
1	3				1						2			2	3	1	2		1		2	6	16		59
											1			2	1	1							1		60
											2												1		61
																			1				1		62
	1		2																						63
	1						1							1						1					64
2			1											2		1	1				2	11			65
1					1						2			1		1					1				66
																									67
					1						2			1	1			1	2		2	1	8		68
4	10	2	2	1	1	1	4				10			12	11		3		6	7	7	4	122	1	69
6	1	3	2	4	2						9			7	8	2	1		6	3	7	6	70	1	70
2	5	5	4		1		2				3			4	3	2	1	3	1	6	3	3	67	2	71
39	1	35	20	53	13	6	4	10	1		36	1		67	49	20	16	2	30	23	42	36	405	14	72
3	1	1	4				1				1			1	4	2	1		5	2	3	4	21	1	73
3	1	3	3	1	1						4			9	4		2		3	6	5	2	14	1	74
1														1									2		75
	2	3	3	1			1				1	1		3	1	1	4		4	2	2	2	47	1	76
1	1		7	1	1		2							5	2	2	4	1	4			3	27		77

TABLE IV.—Continued.—Causes of death in Michigan,

Classification No.	Causes of death, 1899.	Counties—Lake															
		Lake.	Lapeer.	Leelanau.	Lenawee.	Livingston.	Luce.	Mackinac.	Macomb.	Manistee.	Marquette.	Mason.	Mecosta.	Menominee.	Midland.	Missaukee.	Monroe.
	VI. DISEASES OF THE DIGESTIVE SYSTEM.																
78	Diseases of the mouth.....		1		1			1				1					2
79	Diseases of the pharynx and esophagus.....					1				2							
80	Ulcer of the stomach.....	1			4	1		2		2					1		2
81	Other diseases of stomach.....	2	4	5	8	4	3	12	8	7	5	3	1	3	1		6
82	Infantile diarrhea, gastro-enteritis.....	5	19	7	16	12	2	22	31	55	10	14	36	19	10		13
83	Diarrhea and enteritis.....	2	3	1	7	5	1	8	5	8	3	2		2	1		5
84	Dysentery.....		1	1	8		1	4	2	2				1	1		5
86	Hernia and intestinal obstructions.....		1	2	4	2		5	3	1		2	3	4			5
85, 87	Other diseases of the intestines.....		4		5	1		1		1		1		3			1
88	Acute yellow atrophy of liver.....					2						1					
90	Cirrhosis of liver.....			1	1	3		1	1	2	3	1					1
89, 91, 92	Other diseases of the liver.....		5	1	10	6	1	8	6		2	4		2	1		12
93	Peritonitis.....		6		11	1	3	2	3	10	3	3	2	1	1		3
94	Other diseases of digestive system.....				2							1					
95	Iliac abscess.....		3		1	4		3	1	1	2	3			2		1
	VII. DISEASES OF THE GENITO-URINARY SYSTEM.																
96	Acute nephritis.....			1	3	3		2	2	5	1		1				2
97	Bright's disease.....	3	10	2	23	15	1	19	13	15	2	14	5	5	1		11
98-100	Other diseases of the kidneys.....				1	2		3	1		3	1		1			4
101	Vesical calculi.....																
102	Diseases of the bladder.....	1	3	1	10	4		2		4		3					1
103-106	Diseases of male genital organs.....				1			1				1					2
111	Uterine tumor.....			1				1									
109, 110, 112 }	Other uterine diseases.....			1								1					
113	Ovarian tumors.....								1	1		1					
107, 108, 114, 115 }	Other diseases of female genital organs.....					1		2				1					

CAUSES OF DEATH

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by counties, during the year 1899. (Stillbirths included.)

to Keweenaw.

to Keweenaw.																									Classification No.
Chippewa.	Clare.	Clinton.	Crawford.	Delta.	Dickinson.	Eaton.	Emmet.	Genesee.	Gladwin.	Gogebic.	Gd.Traverse	Gratiot.	Hilledale.	Houghton.	Huron.	Ingham.	Ionia.	Iosco.	Iron.	Isabella.	Jackson.	Kalamazoo.	Kalkaska.	Kent.		Keweenaw.
1	1	3	1	1	3	2	3	5	2	3	5	2	3	1	2	3	1	2	1	4	1	8	{ 116-118 123-124		
2	1	5	1	2	1	1	2	6	5	1	7	4	2	3	2	2	6	3	10	{ 119, 120, 122					
	1	1						2			1	1				1	1			1	1		5	121	
	1					1	1			2	2		2		2		3	1			1	5	1	3	125
1	3				2	1	4			2	1	5	1	2	1	2	1	1		1	1	2		4	126
																									127
						1	1										1	2						2	128
															1		1				2				129
		1	1	1		1											1	1				1		1	130
																									131
										1														1	133
					1						1		1	1	1	1	1			1		2			{ 132, 134, 136
1		1	2					4	1	1		1	5	9	1	3	2	2	3	2	7		8	1	137
6	7	11	11	8	2	14		16	10	3	4	30	9	5	2	2	2	7	8	13	3	58			138a
4	2	3	5	8	7	2	9	6	3	3	7	27	8	3	5	3		5	11	12	2	25	2		138b
									1												1	1			139
	1				1								2	3	3					1				2	140
	3	6		8	1	8	3	16	1	1	3	4	6	4	13	11	8	3		4	19	8	1	39	141
				1		3						1	2		1	1	2					1		6	142a
																									142b
					1										2					2	1	1		2	142c
														1											142d
		1			1	1		2	1	1		1					1	2		1	1	2		4	142e
										1							1					1			142f
																									143g
																									142h
														1										1	142i

TABLE IV.—Continued.—Causes of death in Michigan.

Classification No.	Causes of death, 1899.	State.	Counties—Alcona															
			Alcona.	Alger.	Allegan.	Alpena.	Antrim.	Arenac.	Baraga.	Barry.	Bay.	Benzie.	Berrien.	Branch.	Calhoun.	Cass.	Charlevoix.	Cheboygan.
143	<i>B. Accidents—</i> Fractures.....	179	...	5	1	1	2	2	3	6	...	2	4	5	...	1	1	
144	Dislocations	22	...						1	...								
145a	{ Gunshot.....	66	...				1					1	1	2	...	2	1	
145b	{ Lightning	15	...									2						
145c	{ Mining accidents.....	48	...							2		1						
145d	{ Railroad accidents.....	177	...	2						3	2	4		1	4	1	1	
145e	{ Vehicles and horses.....	64	...	1		1				2		1		2				
146a	{ Fire (burn).....	120	...			2	5		2	2		1		6	1	1		
146b	{ Hot liquid (scald).....	30	...	1	1		1			1		2				1		
146c	{ Corrosive substance.....	1	...															
147a	{ Sunstroke.....	9	...															
147b	{ Freezing.....	11	1				1							1				
148	Accidental drowning.....	211	1	1	7	3	1	1		1	7	5	7	1	2	2	2	3
149	Starving	3	...	2														
150	Noxious gases.....	17	...															
151	Other accidental poisons.....	65	...		2	1			1	4		3	1				1	1
152a	Other accidents.....	541	2	7	6	4	2	1	2	9	3	7	5	14	3	3	7	
152b	<i>C. Homicide—</i> Homicide.....	28	...						1		1			1				
	XV. CAUSES ILL-DEFINED.																	
153	Exhaustion	373	...	9				1	4	12	5	3	5	6	5	4	5	
154	Fever, inflammation.....	44	...			1			2					1			1	
155a	Dropsy	277	...	2		4	2		2	6	1	10	1	4	3			
155b	Heart failure	346	...	6	4		2		5	2	1	11	4	7	7			
156	Asphyxia, cyanosis.....	8	...									1						
157	Sudden death.....	3	...															
158	Abdominal tumor.....	29	...			1				1		1	1	1				
159	Other tumors.....	16	...											1				
161	Unknown or not specified causes.....	484	2	5	5	9	7	1	1	4	7	6	5	1	8	1	2	4

CAUSES OF DEATH

61

by counties, during the year 1899. (Stillbirths included.)

to Wexford.

Montcalm.	Montmorency.	Muskegon.	Newaygo.	Oakland.	Oceana.	Ogemaw.	Ontonagon.	Osceola.	Oscoda.	Otsego.	Ottawa.	Presque Isle.	Roscommon.	Saginaw.	St. Clair.	St. Joseph.	Sanilac.	Schoolcraft.	Shiawassee.	Tuscola.	Van Buren.	Washtenaw.	Wayne.	Wexford.	Classification No.
3	2	1	2	1	2	1	2	1	1	1	2	5	3	1	2	2	3	3	2	21	21	116-118			
6	3	1	1	1	2	1	1	2	1	1	1	5	4	3	4	1	2	5	5	43	2	119			
2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	1	1	1	2	4	11	120,122				
3	1	3	1	1	1	1	1	1	1	1	1	5	3	3	1	2	4	28	125	125					
1	1	3	1	1	1	1	1	1	1	1	1	5	5	1	3	1	4	3	14	126	126				
2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	1	1	1	2	4	11	120,122				
3	1	3	1	1	1	1	1	1	1	1	1	5	3	3	1	2	4	28	125	125					
1	1	3	1	1	1	1	1	1	1	1	1	5	5	1	3	1	4	3	14	126	126				
2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	1	1	1	2	4	11	120,122				
3	1	3	1	1	1	1	1	1	1	1	1	5	3	3	1	2	4	28	125	125					
1	1	3	1	1	1	1	1	1	1	1	1	5	5	1	3	1	4	3	14	126	126				
2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	1	1	1	2	4	11	120,122				
3	1	3	1	1	1	1	1	1	1	1	1	5	3	3	1	2	4	28	125	125					
1	1	3	1	1	1	1	1	1	1	1	1	5	5	1	3	1	4	3	14	126	126				
2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	1	1	1	2	4	11	120,122				
3	1	3	1	1	1	1	1	1	1	1	1	5	3	3	1	2	4	28	125	125					
1	1	3	1	1	1	1	1	1	1	1	1	5	5	1	3	1	4	3	14	126	126				
2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	1	1	1	2	4	11	120,122				
3	1	3	1	1	1	1	1	1	1	1	1	5	3	3	1	2	4	28	125	125					
1	1	3	1	1	1	1	1	1	1	1	1	5	5	1	3	1	4	3	14	126	126				
2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	1	1	1	2	4	11	120,122				
3	1	3	1	1	1	1	1	1	1	1	1	5	3	3	1	2	4	28	125	125					
1	1	3	1	1	1	1	1	1	1	1	1	5	5	1	3	1	4	3	14	126	126				
2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	1	1	1	2	4	11	120,122				
3	1	3	1	1	1	1	1	1	1	1	1	5	3	3	1	2	4	28	125	125					
1	1	3	1	1	1	1	1	1	1	1	1	5	5	1	3	1	4	3	14	126	126				
2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	1	1	1	2	4	11	120,122				
3	1	3	1	1	1	1	1	1	1	1	1	5	3	3	1	2	4	28	125	125					
1	1	3	1	1	1	1	1	1	1	1	1	5	5	1	3	1	4	3	14	126	126				
2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	1	1	1	2	4	11	120,122				
3	1	3	1	1	1	1	1	1	1	1	1	5	3	3	1	2	4	28	125	125					
1	1	3	1	1	1	1	1	1	1	1	1	5	5	1	3	1	4	3	14	126	126				
2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	1	1	1	2	4	11	120,122				
3	1	3	1	1	1	1	1	1	1	1	1	5	3	3	1	2	4	28	125	125					
1	1	3	1	1	1	1	1	1	1	1	1	5	5	1	3	1	4	3	14	126	126				
2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	1	1	1	2	4	11	120,122				
3	1	3	1	1	1	1	1	1	1	1	1	5	3	3	1	2	4	28	125	125					
1	1	3	1	1	1	1	1	1	1	1	1	5	5	1	3	1	4	3	14	126	126				
2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	1	1	1	2	4	11	120,122				
3	1	3	1	1	1	1	1	1	1	1	1	5	3	3	1	2	4	28	125	125					
1	1	3	1	1	1	1	1	1	1	1	1	5	5	1	3	1	4	3	14	126	126				
2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	1	1	1	2	4	11	120,122				
3	1	3	1	1	1	1	1	1	1	1	1	5	3	3	1	2	4	28	125	125					
1	1	3	1	1	1	1	1	1	1	1	1	5	5	1	3	1	4	3	14	126	126				
2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	1	1	1	2	4	11	120,122				
3	1	3	1	1	1	1	1	1	1	1	1	5	3	3	1	2	4	28	125	125					
1	1	3	1	1	1	1	1	1	1	1	1	5	5	1	3	1	4	3	14	126	126				
2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	1	1	1	2	4	11	120,122				
3	1	3	1	1	1	1	1	1	1	1	1	5	3	3	1	2	4	28	125	125					
1	1	3	1	1	1	1	1	1	1	1	1	5	5	1	3	1	4	3	14	126	126				
2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	1	1	1	2	4	11	120,122				
3	1	3	1	1	1	1	1	1	1	1	1	5	3	3	1	2	4	28	125	125					
1	1	3	1	1	1	1	1	1	1	1	1	5	5	1	3	1	4	3	14	126	126				
2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	1	1	1	2	4	11	120,122				
3	1	3	1	1	1	1	1	1	1	1	1	5	3	3	1	2	4	28	125	125					
1	1	3	1	1	1	1	1	1	1	1	1	5	5	1	3	1	4	3	14	126	126				
2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	1	1	1	2	4	11	120,122				
3	1	3	1	1	1	1	1	1	1	1	1	5	3	3	1	2	4	28	125	125					
1	1	3	1	1	1	1	1	1	1	1	1	5	5	1	3	1	4	3	14	126	126				
2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	1	1	1	2	4	11	120,122				
3	1	3	1	1	1	1	1	1	1	1	1	5	3	3	1	2	4	28	125	125					
1	1	3	1	1	1	1	1	1	1	1	1	5	5	1	3	1	4	3	14	126	126				
2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	1	1	1	2	4	11	120,122				
3	1	3	1	1	1	1	1	1	1	1	1	5	3	3	1	2	4	28	125	125					
1	1	3	1	1	1	1	1	1	1	1	1	5	5	1	3	1	4	3	14	126	126				
2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	1	1	1	2	4	11	120,122				
3	1	3	1	1	1	1	1	1	1	1	1	5	3	3	1	2	4	28	125	125					
1	1	3	1	1	1	1	1	1	1	1	1	5	5	1	3	1	4	3	14	126	126				
2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	1	1	1	2	4	11	120,122				
3	1	3	1	1	1	1	1	1	1	1	1	5	3	3	1	2	4	28	125	125					
1	1	3	1	1	1	1	1	1	1	1	1	5	5	1	3	1	4	3	14	126	126				
2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	1	1	1	2	4	11	120,122				
3	1	3	1	1	1	1	1	1	1	1	1	5	3	3	1	2	4	28	125	125					
1	1	3	1	1	1	1	1	1	1	1	1	5	5	1	3	1	4	3	14	126	126				
2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	1	1	1	2	4	11	120,122				
3	1	3	1	1	1	1	1	1	1	1	1	5	3	3	1	2	4	28	125	125					
1	1	3	1	1	1	1	1	1	1	1	1	5	5	1	3	1	4	3	14	126	126				
2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	1	1	1	2	4	11	120,122				
3	1	3	1	1	1	1	1	1	1	1	1	5	3	3	1	2	4	28	125	125					
1	1	3	1	1	1	1	1	1	1	1	1	5	5	1	3	1	4	3	14	126	126				
2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	1	1	1	2	4	11	120,122				
3	1	3	1	1	1	1	1	1	1	1	1	5	3	3	1	2	4	28	125	125					
1	1	3	1	1	1	1	1	1	1	1	1	5	5	1	3	1	4	3	14	126	126				
2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	1	1	1	2	4	11	120,122				
3	1	3	1	1	1	1	1	1	1	1	1	5	3	3	1	2	4	28	125	125					
1	1	3	1	1	1	1	1	1	1	1	1	5	5	1	3	1	4	3	14	126	126				
2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	1	1	1	2	4	11	120,122				
3	1																								

CAUSES OF DEATH

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by counties, during the year 1899. (Stillbirths included.)

to Wexford.

Montcalm.	Montmorency.	Muskegon.	Newaygo.	Oakland.	Oceana.	Ogemaw.	Ontonagon.	Osceola.	Oscoda.	Otsego.	Ottawa.	Presque Isle.	Roscommon.	Saginaw.	St. Clair.	St. Joseph.	Sanilac.	Schoolcraft.	Shiawassee.	Tuscola.	Van Buren.	Washtenaw.	Wayne.	Wexford.	Classification No.
1				5							3			10		2	3		2	1	1	5	30	1	143
1			2					2										1			1	1	2		144
		1	2					2		2				1	3	1	3			2	1	2	6		145a
				1																			1		145b
														3											145c
4			1	6	1	1	2		2					14	4	2		1	3	2	1	5	23	3	145d
2				2					1		1			1	1	2	2			4		2	5	1	145e
1	1	3	1	3				3						3	1	2				3	1	1	31	3	146a
			1		1									1	1		2						2		146b
								1																	146c
1															1								3		147a
																									147b
2		2	1	3	2	2	1	1	1	7	1			10	10	1	2		2	1	3	5	26	2	148
																									149
				1							1			2				1				1	3	1	150
2		2				2								2	1	2	2			2			9		151
10	3	9	11	12	9	2	4	6	3	5				16	9	5	8	4	5	7	8	12	69	2	152a
3											1	1			1	2							8		152b
6	1	4	2	12	1			1			7			19	15	1	5		6	3	3	11	41	1	153
			1	1							3				3		1		3			1	11		154
9		8	5	7	5	4		1	1	14				10	2	3	3		3	3	2	2	29	3	155a
5		5	6	19	1	2	1	1	1	15				6	11	2	4	1	6	1	12	7	25	3	155b
											1				1								1		156
																									157
				1										1	1	2			1		1	1	3		158
														1	1					1		1			159
3		7	8	10	4	3	1	4	2	9	24	1		12	8		9	2	3	4	8	4	17	4	161

[illegible]

DEATHS IN CITIES.

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TABLE V.—Continued.—Deaths in Michigan, by months, cities and sex, during the year 1899. (Stillbirths included.)

Cities.	Sex.	Year, 1899.	Months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Detroit.....	Total..	4,611	444	396	409	407	342	411	407	408	323	343	360	361
	Males..	2,346	234	200	206	219	164	207	202	197	187	178	188	164
	Fem...	2,264	210	196	203	188	178	204	205	211	136	165	172	196
	Unk...	1												1
Dowagiac....	Total..	73	14	8	5	9	10	3	3	2	1	4	7	7
	Males..	47	9	6	2	5	5	2	2	1		4	6	5
	Fem...	26	5	2	3	4	5	1	1	1	1		1	2
	Unk...													
East Tawas...	Total..	34	2	3	1	2	4		5	4	3	5	3	2
	Males..	20	2	3	1		1		3	1	3	2	2	2
	Fem...	14				2	3		2	3		3	1	
	Unk...													
Eaton Rapids	Total..	38	5	5	5	3	4	1	2	2	2	2	4	3
	Males..	24	3	4	4	2	2		1	2	1	1	2	2
	Fem...	14	2	1	1	1	2	1	1		1	1	2	1
	Unk...													
Escanaba....	Total..	181	24	17	19	17	12	17	13	12	14	13	7	16
	Males..	104	12	9	14	10	6	11	9	5	10	9	2	7
	Fem...	76	12	8	5	7	6	6	4	7	4	4	4	9
	Unk...	1											1	
Flint.....	Total..	175	11	12	14	15	12	13	10	18	12	21	19	18
	Males..	99	9	6	9	9	6	9	5	7	3	14	9	13
	Fem...	76	2	6	5	6	6	4	5	11	9	7	10	5
	Unk...													
Gladstone....	Total..	36	3	6	2	5	4		4	5	1	1	3	2
	Males..	21	2	5		3	2		1	4	1		2	1
	Fem...	15	1	1	2	2	2		3	1		1	1	1
	Unk...													
Gladwin.....	Total..	10	2	1			1		1	1		3	1	
	Males..	7	1	1			1		1	1		2	1	
	Fem...	3	1						1			1		
	Unk...													
Grand Haven	Total..	68	8	5	7	8	4	3	7	7	4	4	7	4
	Males..	34	4	2	4	4	2	1	3	4	3	2	4	1
	Fem...	34	4	3	3	4	2	2	4	3	1	2	3	3
	Unk...													
Grand Ledge.	Total..	35	4	3	3	1	3	1	4	5	3	3	2	3
	Males..	17	2	1	1	1	1	1	3	1	1	1	2	2
	Fem...	18	2	2	2		2		1	4	2	2		1
	Unk...													
Grand Rapids	Total..	1,335	126	161	155	114	84	73	102	99	97	110	101	113
	Males..	737	74	90	82	56	42	46	53	54	53	61	58	68
	Fem...	598	52	71	73	58	42	27	49	45	44	49	43	45
	Unk...													
Greenville...	Total..	55	6	9	5	4	4	3	6	2	6	4	6	
	Males..	30	5	2	4	2	3	2	6		1	3	2	
	Fem...	25	1	7	1	2	1	1		2	5	1	4	
	Unk...													
Harrison.....	Total..	12		2	1	1		1	2	2		1	1	1
	Males..	8		2		1		1	1	2		1		
	Fem...	4			1				1				1	1
	Unk...													
Hastings.....	Total..	40	4	5	5	4	3	3	2	2	7	3	1	1
	Males..	24	3	2	3	2	2	2	1	1	5	2	1	
	Fem...	16	1	3	2	2	1	1	1	1	2	1		1
	Unk...													
Hillsdale....	Total..	59	2	5	10	8	6	3	2	5	3	9	2	4
	Males..	21	2		5	1	4			5	1	1	1	1
	Fem...	38		5	5	7	2	3	2		2	8	1	3
	Unk...													
Holland.....	Total..	117	9	11	13	13	13	7	6	14	13	2	8	8
	Males..	62	4	4	8	5	7	4	4	9	9	2	3	3
	Fem...	55	5	7	5	8	6	3	2	5	4		5	5
	Unk...													
Hudson.....	Total..	28	4	2	5	3	1	1			3	6	2	1
	Males..	12	3		1			1			2	3	1	1
	Fem...	16	1	2	4	3	1				1	3	1	
	Unk...													
Ionia.....	Total..	73	9	10	5	14	9	7	1	5	2	2	4	5
	Males..	39	5	3	2	9	5	2		3	2	2	3	3
	Fem...	34	4	7	3	5	4	5	1	2		1	2	
	Unk...													
Iron Mountain..	Total..	135	15	13	10	10	12	7	17	12	14	2	8	15
	Males..	77	7	5	7	8	6	5	9	9	6	1	5	9
	Fem...	58	8	8	3	2	6	2	8	3	8	1	3	6
	Unk...													
Ironwood.....	Total..	137	13	7	14	14	12	4	11	10	15	12	17	8
	Males..	89	7	5	9	8	8	3	10	7	14	6	8	4
	Fem...	48	6	2	5	6	4	1	1	3	1	6	9	4
	Unk...													

TABLE V.—Continued.—Deaths in Michigan, by months, cities and sex, during the year 1899. (Stillbirths included.)

Cities.	Sex.	Year, 1899.	Months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Ishpeming...	Total..	197	27	15	13	15	10	14	18	22	27	10	12	14
	Males..	113	17	6	6	11	3	7	9	15	20	6	5	8
	Fem...	84	10	9	7	4	7	7	9	7	7	4	7	6
Jackson	Total..	316	27	37	24	23	27	16	30	18	30	24	26	34
	Males..	161	12	20	11	13	15	6	17	11	18	11	15	12
	Fem...	155	15	17	13	10	12	10	13	7	12	13	11	22
Kalamazoo...	Total..	443	33	48	52	43	38	27	36	31	33	40	38	24
	Males..	243	24	29	24	24	18	13	18	18	19	27	18	11
	Fem...	198	9	19	27	19	20	14	18	13	14	12	20	13
Lansing.....	Total..	206	24	14	21	15	17	19	12	16	17	19	17	15
	Males..	110	14	8	9	8	5	12	7	5	12	13	10	7
	Fem...	95	10	6	12	7	12	7	5	11	5	6	6	8
Lapeer.....	Total..	51	3	7	.....	2	5	1	5	4	5	6	7	6
	Males..	21	1	4	.....	1	1	.....	3	2	2	2	5	.....
	Fem...	30	2	3	.....	2	4	.....	5	1	3	4	5	1
Ludington...	Total..	102	7	5	8	8	11	6	6	16	8	8	9	10
	Males..	58	4	3	6	7	6	4	4	8	6	2	6	2
	Fem...	44	3	2	2	1	5	2	2	8	2	6	3	8
Manistee.....	Total..	192	25	20	18	15	20	6	13	17	20	9	12	17
	Males..	102	12	11	9	9	9	2	9	7	12	4	9	9
	Fem...	90	13	9	9	6	11	4	4	10	8	5	3	8
Marine City..	Total..	62	8	11	7	4	4	2	7	9	1	2	5	2
	Males..	30	5	6	2	2	3	1	2	4	1	1	1	2
	Fem...	32	3	5	5	2	1	1	5	5	.....	1	4	.....
Marquette....	Total..	157	17	12	10	8	16	5	14	19	19	9	15	13
	Males..	92	9	7	5	5	6	3	8	14	12	5	10	8
	Fem...	65	8	5	5	3	10	2	6	5	7	4	5	5
Marshall.....	Total..	69	11	4	7	6	2	5	3	9	6	6	4	6
	Males..	35	5	1	3	5	1	3	1	6	5	2	1	2
	Fem...	32	6	3	4	1	1	1	2	3	1	3	3	4
Mason.....	Total..	35	3	1	4	5	2	2	4	9	4	1	.....	.....
	Males..	22	1	.....	2	4	1	2	1	8	3	.....	.....	.....
	Fem...	13	2	1	2	1	1	.....	3	1	1	.....	.....	.....
Menominee..	Total..	232	29	17	31	27	19	15	15	22	22	13	9	13
	Males..	122	15	8	15	15	8	6	8	14	8	12	5	8
	Fem...	109	14	9	16	12	11	9	7	8	14	1	4	4
Midland.....	Total..	42	5	4	4	3	2	3	4	4	2	7	.....	4
	Males..	22	5	3	1	2	.....	1	2	1	2	3	.....	2
	Fem...	20	.....	1	3	1	2	2	2	3	.....	4	.....	2
Monroe.....	Total..	78	8	16	5	7	4	3	1	10	6	10	5	3
	Males..	37	3	7	2	3	1	2	.....	5	3	7	3	1
	Fem...	41	5	9	3	4	3	1	1	5	3	3	2	2
Mt. Clemens.	Total..	101	16	10	11	5	7	6	8	10	9	9	7	3
	Males..	54	10	5	6	3	3	4	4	6	4	4	3	2
	Fem...	47	6	5	5	2	4	2	4	4	5	5	4	1
Mt. Pleasant.	Total..	48	2	8	1	7	11	7	1	4	2	1	3	1
	Males..	22	1	3	1	3	7	3	.....	2	1	.....	1	.....
	Fem...	26	1	5	.....	4	4	4	1	2	1	1	2	1
Muskegon...	Total..	271	24	31	26	23	20	16	16	22	27	18	25	23
	Males..	154	16	18	12	13	10	12	11	9	15	12	15	11
	Fem...	116	8	13	14	10	9	4	5	13	12	6	10	12
Negaunee....	Total..	76	10	7	10	8	8	3	3	7	4	6	3	7
	Males..	42	6	1	5	4	5	2	3	3	3	3	3	4
	Fem...	34	4	6	5	4	3	1	.....	4	1	3	.....	3
Pellston.....	Total..	40	1	6	4	7	3	2	3	1	2	2	3	6
	Males..	22	.....	4	3	4	2	1	3	.....	2	.....	2	1
	Fem...	18	1	2	1	3	1	1		1		2	1	5
Pellston.....	Total..	5		1		1					2	1		
	Males..	1		1										
	Fem...	4				1					2	1		

DEATHS IN CITIES

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TABLE V.—Concluded.—Deaths in Michigan, by months, cities and sex, during the year 1899. (Stillbirths included.)

Cities.	Sex.	Year, 1899.	Months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Norway	Total ..	75	13	11	3	2	4	6	6	5	7	5	5	8
	Males..	38	6	8	2	1	3	4	2	2	4	4	3	3
	Fem... 37	7	3	1	2	3	3	2	3	5	1	2	5	
Owosso.....	Total ..	114	15	8	10	14	7	10	4	7	14	8	8	9
	Males..	51	7	5	4	5	3	6	4	4	4	4	5	4
	Fem... 63	8	3	6	9	4	4	4	3	10	4	3	5	
Petoskey....	Total ..	69	6	7	5	6	4	5	5	7	10	4	4	6
	Males..	37	4	5	3	3	3	1	2	1	6	4	3	2
	Fem... 32	2	2	2	2	3	1	4	3	6	4	1	1	4
Pontiac.....	Total ..	132	12	13	14	10	7	9	7	13	9	13	12	13
	Males..	60	6	5	7	4	4	3	2	4	5	6	7	7
	Fem... 72	6	8	7	6	3	6	5	9	4	7	5	6	
Port Huron..	Total ..	268	34	33	26	34	16	13	23	29	13	13	22	12
	Males..	139	17	18	12	19	8	6	12	13	7	6	14	7
	Fem... 128	17	14	14	15	8	7	11	16	6	7	8	5	
	Unk... 1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Saginaw.....	Total ..	566	60	47	52	45	56	32	37	60	40	39	57	41
	Males..	324	37	29	32	29	26	17	20	32	21	22	30	29
	Fem... 242	23	18	20	16	30	15	17	17	28	19	17	27	12
St. Clair.....	Total ..	30	2	8	2	5	2	1	1	.....	2	3	.....	4
	Males..	15	2	5	.....	2	1	.....	.....	1	1	2	.....	2
	Fem... 15	.....	3	2	3	1	1	1	.....	1	.....	1	.....	2
St. Ignace....	Total ..	34	3	2	3	4	2	2	2	3	3	3	4	3
	Males..	23	3	2	2	2	1	2	1	1	2	3	4	.....
	Fem... 11	.....	.....	1	2	1	1	1	2	1	.....	.....	.....	3
St. Joseph....	Total ..	65	10	4	10	2	4	7	9	5	3	3	2	6
	Males..	42	4	3	8	1	3	4	4	5	1	1	2	6
	Fem... 23	6	1	2	1	1	3	5	.....	2	2	.....	.....	.....
St. Louis.....	Total ..	30	1	2	3	1	4	2	2	2	2	3	1	7
	Males..	14	.....	.....	2	.....	3	2	.....	1	.....	1	1	4
	Fem... 16	1	2	1	1	1	1	.....	2	1	2	2	.....	3
Sault Ste. Marie.....	Total ..	156	15	11	10	27	11	11	18	22	12	7	6	6
	Males..	90	10	4	3	16	6	9	13	13	5	4	4	3
	Fem... 66	5	7	7	11	5	2	5	9	7	3	2	3	
Stanton.....	Total ..	36	.....	10	4	6	5	.....	1	5	1	3	.....	1
	Males..	20	.....	6	1	1	4	.....	1	4	1	1	.....	1
	Fem... 16	.....	4	3	5	1	.....	.....	1	.....	2	.....	.....	.....
Sturgis.....	Total ..	33	3	7	3	3	3	1	4	1	2	.....	5	1
	Males..	15	2	.....	2	2	1	1	1	.....	2	.....	4	.....
	Fem... 18	1	7	1	1	2	.....	3	1	.....	.....	1	1	
Tawas City...	Total ..	14	.....	3	.....	.....	1	.....	1	3	.....	1	2	3
	Males..	4	.....	2	.....	.....	.....	.....	1	.....	.....	.....	.....	1
	Fem... 10	.....	1	.....	.....	.....	1	.....	1	2	.....	1	2	2
Three Rivers..	Total ..	41	3	6	4	6	3	6	1	1	5	2	3	1
	Males..	23	3	3	2	4	2	3	1	.....	2	1	1	1
	Fem... 18	.....	3	2	2	1	3	.....	1	3	1	2	.....	.....
Traverse City	Total ..	161	17	12	22	18	11	11	5	15	21	15	8	6
	Males..	75	9	2	12	10	4	5	2	8	8	6	4	5
	Fem... 86	8	10	10	8	7	6	3	7	13	9	4	1	
West Bay City.....	Total ..	173	20	25	11	10	12	15	12	14	12	17	13	
	Males..	92	13	10	5	3	9	8	7	4	10	6	11	6
	Fem... 80	7	15	6	6	3	7	5	8	4	6	6	7	
	Unk... 1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wyandotte....	Total ..	69	7	8	2	5	2	6	8	5	6	7	6	7
	Males..	40	4	5	1	2	.....	5	5	2	3	4	3	6
	Fem... 29	3	3	1	3	2	1	3	3	3	3	3	3	1
Ypsilanti....	Total ..	102	7	10	8	9	4	1	10	15	3	15	8	12
	Males..	58	4	5	7	4	2	.....	7	8	3	5	4	9
	Fem... 44	3	5	1	5	2	1	3	7	.....	10	4	3	

TABLE IV.—Continued.—Causes of death in Michigan.

Classification No.	Causes of death, 1899.	Counties—Lake															
		Lake.	Lapeer.	Leelanau.	Lenawee.	Livingston.	Luce.	Mackinac.	Macomb.	Manistee.	Marquette.	Mason.	Mecosta.	Menominee.	Midland.	Missaukee.	Monroe.
	VI. DISEASES OF THE DIGESTIVE SYSTEM.																
78	Diseases of the mouth.....		1		1			1					1				2
79	Diseases of the pharynx and esophagus.....					1				2							
80	Ulcer of the stomach.....	1			4	1		2		2					1		2
81	Other diseases of stomach....	2	4	5	8	4	3	12	8	7	5	3	1	3	1		6
82	Infantile diarrhea, gastro-enteritis.....	5	19	7	16	12	2	4	22	31	55	10	14	36	19	10	13
83	Diarrhea and enteritis.....	2	3	1	7	5	1	8	5	8	3	2			2	1	5
84	Dysentery.....		1	1	8		1	4	2	2				1	1		5
86	Hernia and intestinal obstructions.....		1	2	4	2		5	3	1			2	3	4		5
85, 87	Other diseases of the intestines.....		4		5	1		1		1			1		3		1
88	Acute yellow atrophy of liver.....					2							1				
90	Cirrhosis of liver.....			1	1	3		1	1	2	3	1					1
89, 91, 92	Other diseases of the liver.....		5	1	10	6	1	8	6		2	4			2	1	12
93	Peritonitis.....		6		11	1	3	2	3	10	3	3	2	1	1		3
94	Other diseases of digestive system.....				2								1				
95	Iliac abscess.....		3		1	4		3	1	1	2	3			2		1
	VII. DISEASES OF THE GENITO-URINARY SYSTEM.																
96	Acute nephritis.....			1	3	3		2	2	5	1			1			2
97	Bright's disease.....	3	10	2	23	15	1	1	19	13	15	2	14	5	5	1	11
98-100	Other diseases of the kidneys.....				1	2		3	1		3	1			1		4
101	Vesical calculi.....																
102	Diseases of the bladder.....	1	3	1	10	4		2		4			3				1
103-106	Diseases of male genital organs.....				1			1					1				2
111	Uterine tumor.....			1				1									
109, 110, 112 }	Other uterine diseases.....			1									1				
113	Ovarian tumors.....								1	1			1				
107, 108, 114, 115 }	Other diseases of female genital organs.....												1				

CAUSES OF DEATH

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by counties, during the year 1899. (Stillbirths included.)

to Wexford.																								Classification No.	
Montcalm.	Montmorency.	Muskegon.	Newaygo.	Oakland.	Oceana.	Ogemaw.	Ontonagon.	Osceola.	Oscoda.	Otsego.	Ottawa.	Presque Isle.	Roscommon.	Saginaw.	St. Clair.	St. Joseph.	Sanilac.	Schoolcraft.	Shiawassee.	Tuscola.	Van Buren.	Washtenaw.	Wayne.		Wexford.
1			1					1			4				1		1		1	1			5		78
2			1								1			3		1			2		1	1	5		79
2				1	1						1		1	1	1	2	1		1	1	2	1	12		80
4	1	3	3	5	1	2		4			8	1	11	16	3	10	1		5	5	9	9	76	3	81
33	1	13	20	17	8	7	8	9			33	1	51	43	6	29	1		20	23	19	16	449	21	82
7		8	1	7	6		2	4			14		12	12	9	5			9	6	5	10	62	3	83
3		9	2	5	2		2				2		3	5	2	5			3	1		8	24		84
1				7		1	1	4		1	4	1	7	12			4		4	4	1	5	36	1	86
2		2		1	1						2				1								5		85, 87
																	1								88
4		3		3	1			3			7		2	5	4	2			3		2	3	25	1	90
8		6	4	6				3		1	6	1	7	8	9	6			3	3	4	10	49	1	{ 89, 91, 92
2		5	2	3	3	2	1	2			4		8	8	2	2			4	5	4	10	59		93
																		1					2		94
2		3	2	1	2	1	1	3		1	3		12	4	2	2			3	6	5	8	39	2	95
		1	1								1		8	3	1	1	1		1		1		29	1	96
12		18	6	32	4	1	2	4		3	17		21	20	15	10	1		15	12	10	25	155	1	97
1		3	1	1			2						3	1	5	2				3	1	3	18	1	98-100
																									101
1		2	1	3	2						4		7	2	1	1			1	5	3	1	19	1	102
1		1		2			1				1		2	3	2	4			1	1	1	1	5		103-106
													1	2	1							2	9	1	111
				1									1	2	1							2	5		{ 109, 110, 112
1			1					1			1		2	1							2		7		113
1											2		3	3	1							1	19	1	{ 107, 108 114, 115

TABLE IV.—Continued.—Causes of death in Michigan.

Classification No.	Causes of death, 1899.	Counties—Lake															
		Lake.	Lapeer.	Leelanau.	Lenawee.	Livingston.	Luce.	Mackinac.	Macomb.	Manistee.	Marquette.	Mason.	Mecosta.	Menominee.	Midland.	Missaukee.	Monroe.
VIII. PUERPERAL DISEASES.																	
116-118, } 123, 124 }	Accidents of pregnancy.....			1	3		1	1	3	1	2	3	1	1	1	3	
119, } 120, 122 }	Puerperal septicemia.....	1	4	1	2			2	3	6	3	2	2	2	1	1	
121	Puerperal albuminuria.....			1				2	1		1		1				
IX. DISEASES OF THE SKIN AND CELLULAR TISSUE.																	
125	Erysipelas.....		1		1			2	2	2	1	1	1				
126	Gangrene.....		4	1	8	3		3	2	1	1	1	2	1	1	1	
127	Anthrax.....																
128	Phlegmon, acute abscess.....		1	1	2			1	1			1				1	
129	Other diseases of the skin.....					1							1				
X. DISEASES OF THE LOCO- MOTOR SYSTEM.																	
130	Pott's disease.....				3		1	1			1	1	1	2		1	
131	Chronic or cold abscess.....																
133	White swellings.....																
132, } 134-136 }	Other diseases of locomotor system.....		1										1	1			
XI. MALFORMATIONS.																	
137	Malformations.....		4		2	1	1	6	2	1	1	3		1		1	
XII.—DISEASES OF INFANCY.																	
138a	Congenital debility.....		3	1	6	6	1	7	10	23	2	3	16	2	2	8	
138b	Premature birth.....	1	6	5	7	2	2	3	9	9	2	8	10	5	2	4	
139	Want of care.....								1	1						1	
140	Other diseases of infancy.....				1	1			1	1		1				3	
XIII.—DISEASES OF OLD AGE.																	
141	Senile debility.....	3	12	6	13	9		6	5	2	5	11	5	4	1	4	
XIV.—VIOLENCE.																	
A. Suicide—																	
142a	Poison.....			2				1	1			1					
142b	Asphyxia.....																
142c	Strangulation.....			1	1			3		2					1		
142d	Drowning.....																
142e	Firearms.....				2	1		1	1	1			1			1	
142f	Cutting instruments.....												3				
142g	Fall from height.....																
142h	Crushing.....																
142i	Other methods.....								1	1			1				

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to Wexford.

[illegible]

TABLE IV.—Concluded.—Causes of death in Michigan

Classification No.	Causes of death, 1899.	Counties—Lake															
		Lake.	Lapeer.	Leelanau.	Lenawee.	Livingston.	Luce.	Mackinac.	Macomb.	Manistee.	Marquette.	Mason.	Mecosta.	Menominee.	Midland.	Missaukee.	Monroe.
143	<i>B. Accidents—</i> Fractures.....		1		5	1	1	1	3	3	10	1	1	2		1	
144	Dislocations.....		1		2				1		2						1
145a	{ Gunshot.....					1	1			1	1		1	1	1	1	1
145b	{ Lightning.....				1						1			1	1		
145c	{ Mining accidents.....										12						
145d	{ Railroad accidents.....	2	4	2	4		2	1	2	4	1	1	1	1			4
145e	{ Vehicles and horses.....			1	3					1	1	1	1	1	2		
146a	{ Fire (burn).....				1				1	1	2	1	3				
146b	{ Hot liquid (scald).....								1	2			1			1	
146c	{ Corrosive substance.....																
147a	{ Sunstroke.....			1													
147b	{ Freezing.....																
148	Accidental drowning.....	1		1	4		1	3	2	2	1	3	2				2
149	Starving.....			1													
150	Noxious gases.....																
151	Other accidental poisons.....	1			1			3					2				
152a	Other accidents.....	2	2	5	9	4	1	11	10	9	9	7	7	7	5	2	2
152b	<i>C. Homicide—</i> Homicide.....				1	1				1					2		
	XV. CAUSES ILL-DEFINED.																
153	Exhaustion.....	2	3	1	15	3		4	2	3	2	5	3	2	1	5	
154	Fever, inflammation.....		1		2					1		1					
155a	Dropsy.....	2	6	1	8	1		2			3	6	3	3	1	8	
155b	Heart failure.....	2	5	4	8	6	2	6	3	4	3	3	3	3		3	
156	Asphyxia, cyanosis.....									1							
157	Sudden death.....																
158	Abdominal tumor.....						1					2					
159	Other tumors.....		1									1					
161	Unknown or not specified causes.....	2	2	5	1	2	4	5	20	8	13	6	17	6	4	5	

CAUSES OF DEATH

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by counties, during the year 1899. (Stillbirths included.)

to Wexford.

Montcalm.	Montmorency.	Muskegon.	Newaygo.	Oakland.	Oceana.	Ogemaw.	Ontonagon.	Oscoda.	Oscoda.	Otsego.	Ottawa.	Presque Isle.	Roscommon.	Saginaw.	St. Clair.	St. Joseph.	Sanilac.	Schoolcraft.	Shiawassee.	Tuscola.	Van Buren.	Washtenaw.	Wayne.	Wexford.	Classification No.
1				5							3			10		2	3		2	1	1	5	30	1	143
1			2					2										1			1	1	2		144
	1		2					2		2				1	3	1	3			2	1	2	6		145a
				1																			1		145b
														3											145c
4			1	6	1	1	2			2				14	4	2		1	3	2	1	5	23	3	145d
2				2					1	1		1		1	1	2	2			4		2	5	1	145e
1 1	3	1	3					3						3	1	2				3	1	1	31	3	146a
			1		1									1	1		2						2		146b
								1																	146c
1															1								3		147a
																									147b
2		2	1	3	2	2	1		1	7	1			10	10	1	2		2	1	3	5	26	2	148
																									149
				1							1			2				1				1	3		150
2		2			2									2	1	2	2			2			9		151
10 3	9	11	12	9	2	4	6	3	5					16	9	5	8	4	5	7	8	12	69	2	152a
3											1	1			1	2							8		152b
6 1	4	2	12	1			1			7				19	15	1	5		6	3	3	11	41	1	153
			1	1						3					3		1		3			1	11		154
9		8	5	7	5	4		1		1	14			10	2	3	3		3	3	2	2	29	3	155a
5		5	6	19	1	2	1		1	15				6	11	2	4	1	6	1	12	7	25	3	155b
											1				1								1		156
																									157
				1										1	1	2			1		1	1	3		158
														1	1					1		1			159
3		7	8	10	4	3	1	4		2	9	24	1	12	8		9	2	3	4	8	4	17	4	161

TABLE V.—Deaths in Michigan, by months, cities and sex, during the year 1899. (Stillbirths included.)

Cities.	Sex.	Year, 1899.	Months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
ALL CITIES.	Total ..	14,087	1,393	1,393	1,340	1,258	1,074	978	1,083	1,241	1,103	1,055	1,075	1,094
	Males..	7,490	771	722	696	673	534	526	570	656	630	561	598	553
	Fem...	6,585	622	669	643	584	539	451	513	585	473	492	475	539
	Unk...	12	2	1	1	1	1	1	.....	.....	.....	2	2	2
Adrian.....	Total ..	142	14	13	17	8	14	11	6	12	10	14	9	14
	Males..	68	8	5	8	4	8	2	4	5	7	9	4	4
	Fem...	74	6	8	9	4	6	9	2	7	3	5	5	10
Albion.....	Total ..	73	9	6	9	9	2	3	5	6	11	3	7	3
	Males..	29	5	2	3	4	.....	1	2	2	5	.....	5	.....
	Fem...	44	4	4	6	5	2	2	3	4	6	3	2	3
Alpena.....	Total ..	188	25	18	16	9	17	13	14	19	15	15	15	12
	Males..	107	15	10	4	4	13	8	7	11	9	8	11	7
	Fem...	81	10	8	12	5	4	5	7	8	6	7	4	5
Ann Arbor...	Total ..	181	18	17	15	19	13	9	14	20	13	15	11	17
	Males..	100	11	8	8	12	5	8	6	13	5	7	7	10
	Fem...	81	7	9	7	7	8	1	8	7	8	8	4	7
Au Sable....	Total ..	16	.....	1	1	3	1	1	1	1	2	1	1	3
	Males..	8	.....	1	.....	2	1	.....	.....	1	1	.....	1	.....
	Fem...	8	.....	.....	1	.....	.....	1	1	.....	1	.....	.....	2
Battle Creek.	Total ..	269	26	40	32	23	16	18	15	15	23	24	21	16
	Males..	149	14	20	21	12	8	10	10	10	13	13	11	7
	Fem...	119	12	19	11	11	8	8	5	5	10	11	10	9
	Unk...	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bay City....	Total ..	348	32	39	39	34	29	23	21	30	29	18	28	26
	Males..	198	15	21	22	20	13	14	16	19	23	8	17	10
	Fem...	150	17	18	17	14	16	9	5	11	6	10	11	16
Belding.....	Total ..	44	5	5	4	2	2	4	4	6	3	2	2	5
	Males..	21	3	2	1	1	2	2	3	3	1	1	1	1
	Fem...	23	2	3	3	1	.....	2	1	3	2	1	1	4
Benton Harbor....	Total ..	94	8	5	16	8	3	10	3	10	7	8	7	9
	Males..	47	2	2	9	3	2	3	1	6	5	5	6	3
	Fem...	47	6	3	7	5	1	7	2	4	2	3	1	6
Bessemer....	Total ..	66	4	9	12	4	4	2	8	8	6	3	3	3
	Males..	42	1	6	9	3	3	1	6	4	4	2	2	1
	Fem...	24	3	3	3	1	1	1	2	4	2	1	1	2
Big Rapids...	Total ..	91	6	19	11	10	8	3	4	5	5	6	6	8
	Males..	51	1	15	6	3	5	3	2	2	3	3	4	4
	Fem...	40	5	4	5	7	3	.....	2	3	2	3	2	4
Cadillac.....	Total ..	92	3	9	9	9	9	8	5	7	12	9	7	5
	Males..	47	.....	5	5	5	4	5	2	5	5	3	4	4
	Fem...	45	3	4	4	4	5	3	3	2	7	6	3	1
Charlotte....	Total ..	62	8	8	4	2	4	3	4	6	4	10	4	5
	Males..	30	2	3	2	.....	2	1	2	6	2	4	2	4
	Fem...	32	6	5	2	2	2	2	2	.....	2	6	2	1
Cheboygan...	Total ..	115	6	8	10	14	8	4	7	13	9	8	11	17
	Males..	68	5	4	5	7	5	4	3	8	4	4	8	11
	Fem...	47	1	4	5	7	3	.....	4	5	5	4	3	6
Clare.....	Total ..	32	5	2	4	3	6	3	3	.....	.....	2	2	2
	Males..	17	3	1	3	2	3	2	.....	.....	.....	1	1	1
	Fem...	15	2	1	1	1	3	1	3	.....	.....	1	1	1
Coldwater....	Total ..	89	7	9	5	6	9	8	8	7	9	9	6	6
	Males..	42	4	3	1	2	6	4	3	5	7	3	3	1
	Fem...	47	3	6	4	4	3	4	5	2	2	6	3	5
Corunna.....	Total ..	29	4	3	.....	4	5	.....	1	1	2	1	2	6
	Males..	20	3	2	.....	2	2	.....	1	1	1	1	2	5
	Fem...	9	1	1		2	3				1			1
Crystal Falls.	Total ..	13						1			7			5
	Males..	5						1			2			2
	Fem...	8									5			3

DEATHS IN CITIES.

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TABLE V.—Continued.—Deaths in Michigan, by months, cities and sex, during the year 1899. (Stillbirths included.)

Cities.	Sex.	Year, 1899.	Months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Detroit.....	Total ..	4,611	444	396	409	407	342	411	407	408	323	343	360	361
	Males..	2,346	234	200	206	219	164	207	202	197	187	178	188	164
	Fem...	2,264	210	196	203	188	178	204	205	211	136	165	172	196
	Unk...	1												1
Dowagiac....	Total ..	73	14	8	5	9	10	3	3	2	1	4	7	7
	Males..	47	9	6	2	5	5	2	2	1		4	6	5
	Fem...	26	5	2	3	4	5	1	1	1	1		1	2
East Tawas...	Total ..	34	2	3	1	2	4		5	4	3	5	3	2
	Males..	20	2	3	1		1		3	1	3	2	2	2
	Fem...	14				2	3		2	3		3	1	
Eaton Rapids	Total ..	38	5	5	5	3	4	1	2	2	2	2	4	3
	Males..	24	3	4	4	2	2		1	2	1	1	2	2
	Fem...	14	2	1	1	1	2	1	1		1	1	2	1
Escanaba....	Total ..	181	24	17	19	17	12	17	13	12	14	13	7	16
	Males..	104	12	9	14	10	6	11	9	5	10	9	2	7
	Fem...	76	12	8	5	7	6	6	4	7	4	4	4	9
	Unk...	1											1	
Flint.....	Total ..	175	11	12	14	15	12	13	10	18	12	21	19	18
	Males..	99	9	6	9	9	6	9	5	7	3	14	9	13
	Fem...	76	2	6	5	6	6	4	5	11	9	7	10	5
Gladstone...	Total ..	36	3	6	2	5	4		4	5	1	1	3	2
	Males..	21	2	5		3	2		1	4	1		2	1
	Fem...	15	1	1	2	2	2		3	1		1	1	1
Gladwin.....	Total ..	10	2	1			1		1			3	1	
	Males..	7	1	1			1		1			2	1	
	Fem...	3	1						1			1		
Grand Haven	Total ..	68	8	5	7	8	4	3	7	7	4	4	7	4
	Males..	34	4	2	4	4	2	1	3	4	3	2	4	1
	Fem...	34	4	3	3	4	2	2	4	3	1	2	3	3
Grand Ledge.	Total ..	35	4	3	3	1	3	1	4	5	3	3	2	3
	Males..	17	2	1	1	1	1	1	3	1	1	1	2	2
	Fem...	18	2	2	2		2		1	4	2	2		1
Grand Rapids	Total ..	1,335	126	161	155	114	84	73	102	99	97	110	101	113
	Males..	737	74	90	82	56	42	46	53	54	53	61	58	68
	Fem...	598	52	71	73	58	42	27	49	45	44	49	43	45
Greenville...	Total ..	55	6	9	5	4	4	3	6	2	6	4	6	
	Males..	30	5	2	4	2	3	2	6		1	3	2	
	Fem...	25	1	7	1	2	1	1		2	5	1	4	
Harrison.....	Total ..	12		2	1	1		1	2	2		1	1	1
	Males..	8		2		1		1	1	2		1		
	Fem...	4			1				1				1	1
Hastings.....	Total ..	40	4	5	5	4	3	3	2	2	7	3	1	1
	Males..	24	3	2	3	2	2	2	1	1	5	2	1	
	Fem...	16	1	3	2	2	1	1	1	1	2	1		1
Hillsdale....	Total ..	59	2	5	10	8	6	3	2	5	3	9	2	4
	Males..	21	2		5	1	4			5	1	1	1	1
	Fem...	38		6	5	7	2	3	2		2	8	1	3
Holland.....	Total ..	117	9	11	13	13	13	7	6	14	13	2	8	8
	Males..	62	4	4	8	5	7	4	4	9	9	2	3	3
	Fem...	55	5	7	5	8	6	3	2	5	4		5	5
Hudson.....	Total ..	28	4	2	5	3	1	1			3	6	2	1
	Males..	12	3		1			1			2	3	1	1
	Fem...	16	1	2	4	3	1				1	3	1	
Ionia.....	Total ..	73	9	10	5	14	9	7	1	5	2	2	4	5
	Males..	39	5	3	2	9	5	2		3	2	2	3	3
	Fem...	34	4	7	3	5	4	5	1	2			1	2
Iron Mountain..	Total ..	135	15	13	10	10	12	7	17	12	14	2	8	15
	Males..	77	7	5	7	8	6	5	9	9	6	1	5	9
	Fem...	58	8	8	3	2	6	2	8	3	8	1	3	6
Ironwood	Total ..	137	13	7	14	14	12	4	11	10	15	12	17	8
	Males..	89	7	5	9	8	8	3	10	7	14	6	8	4
	Fem...	48	6	2	5	6	4	1	1	3	1	6	9	4

Cities.	Sex.	Year, 1899.	Months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Ishpeming...	Total..	197	27	15	13	15	10	14	18	22	27	10	12	14
	Males..	113	17	6	6	11	3	7	9	15	20	6	5	8
	Fem...	84	10	9	7	4	7	7	9	7	7	4	7	6
Jackson	Total..	316	27	37	24	23	27	16	30	18	30	24	26	34
	Males..	161	12	20	11	13	15	6	17	11	18	11	15	12
	Fem...	155	15	17	13	10	12	10	13	7	12	13	11	22
Kalamazoo...	Total..	443	33	48	52	43	38	27	36	31	33	40	38	24
	Males..	243	24	29	24	24	18	13	18	18	19	27	18	11
	Fem...	198	9	19	27	19	20	14	18	13	14	12	20	13
Lansing.....	Total..	206	24	14	21	15	17	19	12	16	17	19	17	15
	Males..	110	14	8	9	8	5	12	7	5	12	13	10	7
	Fem...	95	10	6	12	7	12	7	5	11	5	6	6	8
Lapeer.....	Total..	51	3	7	.....	2	5	1	5	4	5	6	7	6
	Males..	21	1	4	.....	.....	1	1	.....	3	2	2	2	5
	Fem...	30	2	3	.....	2	4	.....	5	1	3	4	5	1
Ludington...	Total..	102	7	5	8	8	11	6	6	16	8	8	9	10
	Males..	58	4	3	6	7	6	4	4	8	6	2	6	2
	Fem...	44	3	2	2	1	5	2	2	8	2	6	3	8
Manistee.....	Total..	192	25	20	18	15	20	6	13	17	20	9	12	17
	Males..	102	12	11	9	9	9	2	9	7	12	4	9	9
	Fem...	90	13	9	9	6	11	4	4	10	8	5	3	8
Marine City..	Total..	62	8	11	7	4	4	2	7	9	1	2	5	2
	Males..	30	5	6	2	2	3	1	2	4	1	1	1	2
	Fem...	32	3	5	5	2	1	1	5	5	.....	1	4	.....
Marquette....	Total..	157	17	12	10	8	16	5	14	19	19	9	15	13
	Males..	92	9	7	5	5	6	3	8	14	12	5	10	8
	Fem...	65	8	5	5	3	10	2	6	5	7	4	5	5
Marshall.....	Total..	69	11	4	7	6	2	5	3	9	6	6	4	6
	Males..	35	5	1	3	5	1	3	1	6	5	2	1	2
	Fem...	32	6	3	4	1	1	1	2	3	1	3	3	4
Mason.....	Total..	35	3	1	4	5	2	2	4	9	4	1	.....	.....
	Males..	22	1	.....	2	4	1	2	1	8	3	.....	.....	.....
	Fem...	13	2	1	2	1	1	.....	3	1	1	.....	.....	.....
Menominee...	Total..	232	29	17	31	27	19	15	15	22	22	13	9	13
	Males..	122	15	8	15	15	8	6	8	14	8	12	5	8
	Fem...													

DEATHS IN CITIES

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TABLE V.—Concluded.—Deaths in Michigan, by months, cities and sex, during the year 1899. (Stillbirths included.)

Cities.	Sex.	Year, 1899.	Months, 1899.											
			Jan.	Feb.	Mar.	Apr.	May	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Norway	Total ..	75	13	11	3	2	4	6	6	5	7	5	5	8
	Males..	38	6	8	2	.....	1	3	4	2	2	4	3	3
	Fem...	37	7	3	1	2	3	3	2	3	5	1	2	5
Owosso.....	Total ..	114	15	8	10	14	7	10	4	7	14	8	8	9
	Males..	51	7	5	4	5	3	6	.....	4	4	4	5	4
	Fem...	63	8	3	6	9	4	4	4	3	10	4	3	5
Petoskey....	Total ..	69	6	7	5	6	4	5	5	7	10	4	4	6
	Males..	37	4	5	3	3	3	1	2	1	6	4	3	2
	Fem...	32	2	2	2	3	1	4	3	6	4	.....	1	4
Pontiac.....	Total ..	132	12	13	14	10	7	9	7	13	9	13	12	13
	Males..	60	6	5	7	4	4	3	2	4	5	6	7	7
	Fem...	72	6	8	7	6	3	6	5	9	4	7	5	6
Port Huron..	Total ..	268	34	33	26	34	16	13	23	29	13	13	22	12
	Males..	139	17	18	12	19	8	6	12	13	7	6	14	7
	Fem...	128	17	14	14	15	8	7	11	16	6	7	8	5
	Unk...	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Saginaw.....	Total ..	566	60	47	52	45	56	32	37	60	40	39	57	41
	Males..	324	37	29	32	29	26	17	20	32	21	22	30	29
	Fem...	242	23	18	20	16	30	15	17	28	19	17	27	12
St. Clair.....	Total ..	30	2	8	2	5	2	1	1	.....	2	3	.....	4
	Males..	15	2	5	.....	2	1	.....	.....	.....	1	2	.....	2
	Fem...	15	.....	3	2	3	1	1	1	.....	1	1	.....	2
St. Ignace....	Total ..	34	3	2	3	4	2	2	2	3	3	3	4	3
	Males..	23	3	2	2	2	1	2	1	1	2	3	4	.....
	Fem...	11	.....	.....	1	2	1	.....	1	2	1	.....	.....	3
St. Joseph....	Total ..	65	10	4	10	2	4	7	9	5	3	3	2	6
	Males..	42	4	3	8	1	3	4	4	5	1	1	2	6
	Fem...	23	6	1	2	1	1	3	5	.....	2	2	.....	.....
St. Louis.....	Total ..	30	1	2	3	1	4	2	2	2	2	3	1	7
	Males..	14	.....	.....	2	.....	3	2	.....	1	.....	1	1	4
	Fem...	16	1	2	1	1	1	.....	2	1	2	2	.....	3
Sault Ste. Marie.....	Total ..	156	15	11	10	27	11	11	18	22	12	7	6	6
	Males..	90	10	4	3	16	6	9	13	13	6	4	4	3
	Fem...	66	5	7	7	11	5	2	5	9	7	3	2	3
Stanton.....	Total ..	36	.....	10	4	6	5	.....	1	5	1	3	.....	1
	Males..	20	.....	6	1	1	4	.....	1	4	1	1	.....	1
	Fem...	16	.....	4	3	5	1	.....	.....	1	.....	2	.....	.....
Sturgis.....	Total ..	33	3	7	3	3	3	1	4	1	2	.....	5	1
	Males..	15	2	.....	2	2	1	1	1	.....	2	.....	4	.....
	Fem...	18	1	7	1	1	2	.....	3	1	.....	1	1	.....
Tawas City...	Total ..	14	.....	3	.....	.....	1	.....	1	3	.....	1	2	3
	Males..	4	.....	2	.....	.....	.....	.....	1	.....	.....	.....	.....	1
	Fem...	10	.....	1	.....	.....	1	.....	1	2	.....	1	2	2
Three Rivers.	Total ..	41	3	6	4	6	3	6	1	1	5	2	3	1
	Males..	23	3	3	2	4	2	3	1	.....	2	1	1	1
	Fem...	18	.....	3	2	2	1	3	.....	1	3	1	2	.....
Traverse City	Total ..	161	17	12	22	18	11	11	5	15	21	15	8	6
	Males..	75	9	2	12	10	4	5	2	8	8	6	4	5
	Fem...	86	8	10	10	8	7	6	3	7	13	9	4	1
West Bay City.....	Total ..	173	20	25	11	10	12	15	12	12	14	12	17	13
	Males..	92	13	10	5	3	9	8	7	4	10	6	11	6
	Fem...	80	7	15	6	6	3	7	5	8	4	6	6	7
	Unk...	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
Wyandotte....	Total ..	69	7	8	2	5	2	6	8	5	6	7	6	7
	Males..	40	4	5	1	2	.....	5	5	2	3	4	3	6
	Fem...	29	3	3	1	3	2	1	3	3	3	3	3	1
Ypsilanti....	Total ..	102	7	10	8	9	4	1	10	15	3	15	8	13
	Males..	58	4	5	7	4	2	.....	7	8	3	5	4	9
	Fem...	44	3	5	1	5	2	1	3	7	.....	10	4	3

TABLE VI.—Deaths in Michigan, by ages, cities

Cities.	Sex.	Total deaths at all ages, 1899.*	Still-born.	Ages in years.				
				Under 1 year.†	1.	2.	3.	4.
ALL CITIES	Total	14,087	830	2,956	546	259	170	141
	Males.....	7,490	478	1,641	296	155	81	69
	Fem.....	6,585	340	1,315	250	104	89	72
	Unk.....	12	12					
Adrian.....	Total	142	2	17	1	1		3
	Males.....	68	1	6	1	1		2
	Fem.....	74	1	11				1
Albion.....	Total	73	1	11			1	
	Males.....	29	1	3			1	
	Fem.....	44		8				
Alpena.....	Total	188	9	56	4	3	3	1
	Males.....	107	3	36	3	2	1	1
	Fem.....	81	6	20	1	1	2	
Ann Arbor.....	Total	181	2	18	2	1	1	1
	Males.....	100	2	12			1	1
	Fem.....	81		6	2	1		
Au Sable.....	Total	16		4				
	Males.....	8		2				
	Fem.....	8		2				
Battle Creek.....	Total	269	6	31	8	3	2	1
	Males.....	149	1	19	5	3	1	
	Fem.....	119	4	12	3		1	1
	Unk.....	1	1					
Bay City.....	Total	348	21	71	13	8	6	2
	Males.....	198	13	46	7	5	5	2
	Fem.....	150	8	25	6	3	1	
Belding.....	Total	44	7	5		1	3	
	Males.....	21	1	4		1	1	
	Fem.....	23	6	1			2	
Benton Harbor.....	Total	94	5	18				1
	Males.....	47	4	7				1
	Fem.....	47	1	11				
Bessemer.....	Total	66	3	26	4	2	1	
	Males.....	42	3	16	3	2		
	Fem.....	24		10	1		1	
Big Rapids.....	Total	91	2	7		2		2
	Males.....	51		4		1		2
	Fem.....	40	2	3		1		
Cadillac.....	Total	92	9	14	5	2	1	1
	Males.....	47	5	6	2	1	1	1
	Fem.....	45	4	8	3	1		
Charlotte.....	Total	62		5			1	
	Males.....	30		1			1	
	Fem.....	32		4				
Cheboygan.....	Total	115	15	31	7	2	1	3
	Males.....	68	9	19	2	1	1	2
	Fem.....	47	6	12	5	1		1
Clare.....	Total	32		11		2	1	2
	Males.....	17		5		2	1	1
	Fem.....	15		6				1
Coldwater.....	Total	89	6	10	2		2	1
	Males.....	42	4	6			1	1
	Fem.....	47	2	4	2		1	

* Stillbirths included.

† Stillbirths not included.

DEATHS IN CITIES

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and sex, during the year 1899. (Stillbirths included.)

Ages in five-year periods.

Under 5 years.†	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 and over.	Unk.
4,902	375	274	423	631	571	503	547	548	542	520	609	655	762	724	644	829	28
2,720	191	142	212	299	248	224	286	272	335	291	362	343	414	368	350	409	24
2,170	184	132	211	332	323	279	261	276	207	229	247	312	348	356	294	420	4
12																	
24	1	2	4	8	3	7	5	3	6	5	4	9	11	14	11	25	
11		1	2	3	1	2	3	1	4	3	2	5	5	10	3	12	
13	1	1	2	5	2	5	2	2	2	2	2	4	6	4	8	13	
13		2	2	6		3	1	3	1	3	2	7	5	7	7	11	
5			1	1	1	1			1	2	2	1	4	4	4	7	
8		2	1	5		2	1	3	1	2	2	5	4	3	3	4	
76	7	4	7	11	4	1	13	7	10	7	3	8	4	6	8	12	
46	4	4	1	4			7	4	8	4	3	5	2	3	5	7	
30	3		6	7	4	1	6	3	2	3		3	2	3	3	5	
25	1	3	7	14	8	7	10	14	12	11	11	7	10	12	14	15	
16	1	2	3	11	2	4	6	10	5	4	7	5	6	5	5	8	
9		1	4	3	6	3	4	4	7	7	4	2	4	7	9	7	
4				1		2	2	1		1	1	2				2	
2				1		2	1	1		1	1	2				2	
51	8	7	12	13	11	10	6	16	8	17	15	16	19	16	22	20	2
29	5	5	8	5	6	3	5	13	5	7	7	3	15	8	12	11	2
21	3	2	4	8	5	7	1	3	3	10	8	13	4	8	10	9	
1																	
121	10	5	14	9	16	12	17	8	12	11	14	14	19	30	14	21	1
78	3	2	8	2	7	5	8	3	10	6	11	6	10	20	8	11	
43	7	3	6	7	9	7	9	5	2	5	3	8	9	10	6	10	1
16		2	4	2			1	2	2	3	3	1	1	2	3		
7		1	2	2				2	2	1	2	1	1	1	2	1	
9				2	2		1		2	2	1	1	1	2	2	2	
24	3	1		5	1	8	2	3	3	3	7	3	9	9	7	6	
12	2					3	1	1	1	3	2	2	5	8	4	3	
12	1	1		5	1	5	1	2	2	5	1	4	1	1	3	3	
36	3			3	5		5	4	1	1	3	2	1	1	1		
24	1			1	3		3	3	1	1	3	1	1		1		
12	2			2	2		2	1				1	1	1			
13	3	2	6	3	8	3	4	8	5	8	6	3	8	3	2	5	1
7	3	1	2	2	5	1	2	3	3	3	3	3	5	2	2	3	1
6		1	4	1	3	2	2	5	2	5	3		3	1		2	
32	3	3	4	10	5	2	4		5	5	3	1	7	3	5		
16	3	2	2	5	1	1	1		3	4	1		4	2	2		
16		1	2	5	4	1	3		2	1	2	1	3	1	3		
6		2	2	3	2	4	1	1	2	2	5	3	6	7	5	11	
2			2	1	1	3	1		1	1	2	3	3	4	2	4	
4		2		2	1	1		1	1	1	3		3	3	3	7	
59	5	1	4	2	1	5	4	4	8	2	5	1	3	3	4	4	
34	4	1	4	1		1		3	6	2	4		2	2	2	2	
25	1			1	1	4	4	1	2		1	1	1	1	2	2	
16		1	1	1	1		1	2	1		3		1	2	2		
9		1		1	1		1		1		1		2	1	1		
7			1					2	1		2		1		1		
21			4	2	1	7		6	9	1	6	6	3	7	6	10	
12			2	1		2		2	5	4	3	4	1	2	4	4	
9			2	1	1	5		4	4	1	3	2	2	5	2	6	

† Stillbirths not included.

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TABLE VI.—Continued.—Deaths in Michigan, by ages, cities

Cities.	Sex.	Total deaths at all ages, 1899.*	Still-born.	Ages in years.				
				Under 1 year.†	1.	2.	3.	4.
	Total	29	1	1	2	3		
	Males	20		1	2	3		
	Fem	9	1					
	Total	13		2		1		
	Males	5		1				
	Fem	8		1		1		
	Total	4,611	320	1,181	229	102	54	47
	Males	2,346	185	629	120	60	23	14
	Fem	2,264	134	553	109	42	31	33
	Unk	1	1					
	Total	73	1	10	5	1		1
	Males	47		8	4	1		1
	Fem	26	1	2	1			
	Total	34		6	4	1	1	
	Males	20		4	3			
	Fem	14		2	1	1	1	
ids...	Total	38	2	3				
	Males	24	1	2				
	Fem	14	1	1				
	Total	181	11	41	12	2	2	
	Males	104	3	22	8			
	Fem	76	7	19	4	2	2	
	Unk	1	1					
Flint	Total	175	4	23	4	2	2	
	Males	99	4	13	1	2	2	
	Fem	76		10	3			
Gladstone	Total	36	3	8	5			1
	Males	21	3	5	2			
	Fem	15		3	3			1
Gladwin	Total	10		1	1			
	Males	7		1				
	Fem	3			1			
Grand Haven	Total	68	2	8	2	2		
	Males	34	1	2		1		
	Fem	34	1	6	2	1		
Grand Ledge	Total	35		4	1	1		
	Males	17		1	1			
	Fem	18		3		1		
Grand Rapids	Total	1,335	109	260	53	28	17	11
	Males	737	62	163	30	16	8	7
	Fem	598	47	97	23	12	9	4
Greenville	Total	55	4	7	1	1		
	Males	30	4	3				
	Fem	25		4	1	1		
Harrison	Total	12		1				
	Males	8		1				
	Fem	4						
Hastings	Total	40		9				1
	Males	24		4				
	Fem	16		5				1
Hulldale	Total	59		7	1	1		
	Males	21		3	1	1		
	Fem	38		4				

rths included.
 rths not included.

DEATHS IN CITIES

71

and sex, during the year 1899. (Stillbirths included.)

Ages in five-year periods.

Under 5 years.†	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 and over.	Unk.
7	1		1	1	2			2	1	1		1	2	1	6	3	
6	1				2							1	2	1	4	3	
1			1	1				2	1	1					2		
3	3		2		1	1			2				1				
1	1		2						1								
2	2				1	1			1				1				
1,933	118	78	114	195	181	150	178	167	153	168	160	211	225	198	173	208	1
1,030	54	40	52	83	69	68	88	91	94	87	93	115	167	85	92	97	1
902	64	38	62	112	112	82	90	76	59	81	67	96	118	113	81	111	
1																	
18	5	1	2	1	2	4	1	1	1	4	3	6	7	4	4	8	1
14	3	1	2	1	1	2		1		3	3	2	5	2	2	4	1
4	2				1	2	1		1	1		4	2	2	2	4	
12		1	1		3	1	1	2	5		1	2	2	2		1	
7		1	1		1	1	1	1	3		1	1	1	1		1	
5					2			1	2			1	2	1			
5		1		1			1	2		2	5	3	4	1	7	6	
3		1					1	1			3	1	3	1	5	5	
2				1				1		2	2	2	1		2	1	
68	5	2	4	13	14	7	13	9	9	10	4	5	8	3	2	4	1
33	2	2		7	10	4	9	4	7	7	3	4	8	1	2	3	1
34	3		4	6	4	3	4	5	2	3	1	1	3	2		1	
1																	
35	5	5	2	10	7	6	7	8	9	7	10	17	10	8	15	13	1
22	2	3	2	6	2	3	4	4	5	6	5	11	6	3	9	5	1
13	3	2		4	5	3	3	4	4	1	5	6	4	5	6	8	
17	1	3	1		1	1	3	2	1	2		1		1	1	1	
10	1	3			1		2	1	1	2							
7			1			1	1	1				1		1	1	1	
2	1	1			2			1						1		1	1
1	1	1			2												1
1								1								1	
14		1	4		3	2	3	4	2	3	4	6	4	7	4	6	1
4		1	3		1		1	1	2	2		3	3	6	2	4	1
10			1		2	2	2	3		1	4	3	1	1	2	2	
6					2	1	1		1	3	1		3	6	4	7	
2					2					2			2	3	1	4	
4						1			1	1	1		1	3	3	3	
478	51	32	37	69	60	48	50	47	57	37	60	48	78	63	46	72	2
286	29	15	19	30	26	24	25	17	37	17	36	25	38	45	31	35	2
192	22	17	18	39	34	24	25	30	20	20	24	23	40	18	15	37	
13	1	1		4	1		1	1	3	3	2		9	3	8	5	
7				2	1				2	2			5	1	6	4	
6	1	1		2			1	1	1	1	2		4	2	2	1	
1		1						3	1			2	1	1		2	
1		1						1	1			2	2	1		1	
								2						1		1	
10		1	2	2		2			2		3		4	3	4	7	
4		1				1			2		3		2	2	3	5	
6			1	2		1							2	1	1	2	
9	2			2	1	5		5	2	2	2	6	3	8	9	3	
5	1					3		2	1	1		2	2	1	1	2	
4	1			2	1	2		3	1	1	2	4	1	7	8	1	

†Stillbirths not included.

TABLE VI.—Continued.—Deaths in Michigan by ages, cities

Cities.	Sex.	Total deaths at all ages, 1899.*	Still-born.	Ages in years.				
				Under 1 year.†	1.	2.	3.	4.
Holland.....	Total.....	117	1	28	4	2	4	1
	Males.....	62	1	12	2	1	3	1
	Fem.....	55		16	2	1	1	
Hudson.....	Total.....	28	1	2	1			
	Males.....	12		2				
	Fem.....	16	1		1			
Ionia.....	Total.....	73	2	8	1	1	1	
	Males.....	39	1	6	1		1	
	Fem.....	34	1	2		1		
Iron Mountain.*	Total.....	135	11	48	8	2	1	3
	Males.....	77	5	24	3	2	1	2
	Fem.....	58	6	24	5			1
Ironwood.....	Total.....	137	9	41	10	3	3	3
	Males.....	89	6	27	8	3		2
	Fem.....	48	3	14	2		3	1
Ishtepeming.....	Total.....	197	23	59	9	5	3	3
	Males.....	113	15	38	3	3	1	2
	Fem.....	84	8	21	6	2	2	1
Jackson.....	Total.....	316	17	45	3	4		2
	Males.....	161	8	25	2	4		1
	Fem.....	155	9	20	1			1
Kalamazoo.....	Total.....	443	20	57	9	6	1	3
	Males.....	243	9	30	6	3	1	2
	Fem.....	198	9	27	3	3		1
Lansing.....	Unk.....	2	2					
	Total.....	206	10	32	5		1	3
	Males.....	110	6	21	4			2
Lapeer.....	Fem.....	95	3	11	1		1	1
	Unk.....	1	1					
Ludington.....	Total.....	51		5		1		
	Males.....	21		4		1		
	Fem.....	30		1				
Manistee.....	Total.....	102	4	15	9	4	4	1
	Males.....	58	3	9	5	4	2	
	Fem.....	44	1	6	4		2	1
Marine City.....	Total.....	192	10	53	13	6	7	4
	Males.....	102	9	28	7	3	1	3
	Fem.....	90	1	25	6	3	6	1
Marquette.....	Total.....	62	1	20	5	3	3	1
	Males.....	30	1	9	2	2	1	1
	Fem.....	32		11	3	1	2	
Marshall.....	Total.....	157	11	35	8	5	1	1
	Males.....	92	5	17	4	1		1
	Fem.....	65	6	18	4	4	1	
Mason.....	Total.....	69	3	8			1	
	Males.....	35		5			1	
	Fem.....	32	1	3				
Mason.....	Unk.....	2	2					
	Total.....	35	1	7	2			1
	Males.....	22	1	5	1			1
	Fem.....	13		2	1			

* Stillbirths included.

† Stillbirths not included.

DEATHS IN CITIES

73

and sex, during the year 1899. (Stillbirths included.)

Age in five-year periods.

Under 5 years.†	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 and over.	Unk.
40	5	2	4	4	3	6	5	4	5	3	8	4	6	6	6	6	6
20	2	1	2	4	2	4	2	1	2	1	4	2	4	4	3	4	4
20	3	1	2	.....	1	2	3	3	3	2	4	2	2	2	3	2	2
4	.....	1	.....	.....	1	.....	.....	1	2	.....	.....	4	2	5	6	2	2
2	.....	1	.....	.....	1	.....	.....	1	1	.....	.....	1	2	1	3	1	1
2	.....	1	.....	.....	1	.....	.....	1	1	.....	.....	3	.....	4	3	1	.....
13	3	4	5	4	3	3	.....	2	4	2	3	5	4	8	3	7	.....
9	1	3	5	1	1	1	.....	.....	2	1	3	4	2	4	1	1	.....
4	2	1	.....	3	2	2	.....	2	2	1	.....	1	2	4	2	6	.....
73	4	4	5	4	3	4	9	6	1	4	2	4	6	3	2	1	.....
37	1	2	3	4	3	3	5	3	.....	4	2	1	6	1	1	1	.....
36	3	2	2	.....	.....	1	4	3	1	.....	.....	3	.....	2	1	.....	.....
60	5	1	6	5	5	9	9	6	8	4	1	5	2	2	.....	.....	.....
46	1	1	4	5	4	6	5	3	4	4	.....	.....	3	1	2	.....	.....
23	4	.....	2	.....	1	3	4	3	4	.....	1	2	1	.....	.....	.....	.....
102	5	4	5	9	14	3	5	5	4	13	6	3	3	8	5	2	1
62	3	2	3	6	9	1	1	3	2	8	1	2	1	3	3	2	1
40	2	2	2	3	5	2	4	2	2	5	5	1	2	5	2	.....	.....
71	4	3	12	11	17	9	16	15	13	16	16	23	23	21	17	29	.....
40	1	1	7	6	10	4	6	5	8	8	7	17	16	2	8	15	.....
31	3	2	5	5	7	5	10	10	5	8	9	6	7	19	9	14	.....
96	7	6	16	19	18	21	20	21	21	20	22	27	33	25	23	45	3
51	2	4	8	7	8	13	14	10	14	10	16	11	17	15	16	25	2
43	5	2	8	12	10	8	6	11	7	10	6	16	16	10	7	20	1
2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
51	8	3	10	8	6	5	5	8	7	8	12	13	13	18	13	17	1
33	2	.....	7	3	1	2	4	4	5	5	7	7	8	9	7	5	1
17	6	3	3	5	5	3	1	4	2	3	5	6	5	9	6	12	.....
1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6	3	.....	1	2	5	1	.....	4	1	.....	5	2	7	6	4	4	.....
5	1	.....	.....	.....	2	.....	.....	1	1	.....	.....	1	3	4	1	2	.....
1	2	.....	1	2	3	1	.....	3	.....	.....	5	1	4	2	3	2	.....
37	6	2	5	5	5	3	3	6	2	2	6	4	7	3	4	2	.....
23	4	1	3	2	2	1	1	5	2	2	5	1	3	1	1	1	.....
14	2	1	2	3	3	2	2	1	.....	.....	1	3	4	2	3	1	.....
93	5	9	3	5	6	11	9	5	5	6	10	3	7	3	5	7	.....
51	3	3	2	4	5	5	4	1	3	3	8	.....	4	1	4	1	.....
42	2	6	1	1	1	6	5	4	2	3	2	3	3	2	1	6	.....
33	2	2	1	2	2	1	.....	2	.....	3	1	.....	3	4	1	5	.....
16	1	1	.....	2	1	.....	.....	1	.....	2	1	.....	3	.....	.....	2	.....
17	1	1	1	.....	1	1	.....	1	.....	1	.....	.....	.....	4	1	3	.....
61	7	1	4	14	10	7	14	2	8	2	8	5	4	3	4	3	.....
28	2	1	.....	10	7	4	11	2	7	2	6	5	3	1	3	.....	.....
33	5	1	3	4	3	3	3	.....	1	.....	2	.....	1	2	1	3	.....
12	2	2	1	3	.....	3	2	4	2	2	5	5	8	6	5	7	.....
6	2	1	1	.....	.....	1	2	1	1	1	4	4	2	3	1	4	.....
4	.....	1	.....	2	.....	2	.....	3	1	1	1	1	6	3	4	3	.....
2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11	.....	.....	.....	.....	.....	3	1	3	.....	1	2	.....	4	2	7	1	.....
8	.....	.....	.....	.....	.....	2	.....	3	.....	.....	2	.....	2	.....	4	1	.....
3	.....	.....	.....	.....	.....	1	1	.....	.....	1	.....	.....	2	2	3	.....	.....

†Stillbirths not included.

VITAL STATISTICS OF MICHIGAN, 1899

TABLE VI.—Continued.—Deaths in Michigan, by ages, cities,

Cities.	Sex.	Total deaths at all ages, 1899.*	Still-born.	Ages in years.				
				Under 1 year.†	1.	2.	3.	4.
Menominee	Total	232	21	61	12	9	6	6
	Males	122	7	36	11	6	5	1
	Fem.	109	13	25	1	3	1	5
	Unk.	1	1					
Midland	Total	42	1	7	1	2		
	Males	22	1	4		2		
	Fem.	20		3	1			
Monroe	Total	78	3	9	1		1	1
	Males	37	2	5				
	Fem.	41	1	4	1		1	1
Mt. Clemens	Total	101	6	13	3			2
	Males	54	3	6				
	Fem.	47	3	7	3			2
Mt. Pleasant	Total	48		7	1	1	1	
	Males	22		2	1		1	
	Fem.	26		5		1		
Muskegon	Total	271	14	42	15	8	7	1
	Males	154	13	25	6	5	3	1
	Fem.	116		17	10	3	4	
	Unk.	1	1					
Negaunee	Total	76	9	21	3	1		1
	Males	42	7	10	3	1		
	Fem.	34	2	11				1
Niles	Total	40	1	3				1
	Males	22	1	1				1
	Fem.	18		2				
North Muskegon	Total	5						
	Males	1						
	Fem.	4						
Norway	Total	75	5	28	10	2	4	1
	Males	38	3	16	5	1	1	1
	Fem.	37	2	12	5	1	3	
Owosso	Total	114	1	20	2	2	1	3
	Males	51		9	2			2
	Fem.	63	1	11		2	1	1
Petoskey	Total	69	2	13	2	1		
	Males	37	1	7	2			
	Fem.	32	1	6		1		
Pontiac	Total	132	1	16	3	2		
	Males	60	1	6	1	1		
	Fem.	72		10	2	1		
Port Huron	Total	268	29	55	7	1	3	3
	Males	139	16	32	2			1
	Fem.	128	12	23	5	1	3	2
	Unk.	1	1					
Saginaw	Total	566	39	97	14	6	7	4
	Males	324	27	54	10	4	7	2
	Fem.	242	12	43	4	2		2
St. Clair	Total	30		6	1			1
	Males	15		4				
	Fem.	15		2	1			1

* Stillbirths included.

† Stillbirths not included.

DEATHS IN CITIES

75

and sex, during the year 1899. (Stillbirths included.)

Ages in five-year periods.

Under 5 years.†	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 and over.	Unk.
115	5	8	7	16	16	8	9	9	7	4	5	...	8	5	6	4	...
66	3	1	3	9	10	4	5	2	4	4	3	...	4	2	2	...	...
48	2	7	4	7	6	4	4	7	3	...	2	...	4	3	4	...	...
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11	3	1	2	1	2	...	1	3	1	3	3	2	1	2	...	6	...
7	1	...	...	...	...	...	1	1	...	1	2	2	1	1	...	5	...
4	2	1	2	1	2	...	...	2	1	2	1	...	...	1	...	1	...
15	...	2	1	2	2	4	2	2	5	...	4	4	7	8	6	14	...
7	...	1	1	1	2	2	...	1	2	...	2	1	3	6	2	6	...
8	...	1	...	1	...	2	2	1	3	...	2	3	4	2	4	8	...
24	1	5	2	6	5	4	7	6	6	4	4	8	7	4	3	5	...
9	1	2	1	4	3	1	4	5	6	4	2	4	4	3	1	...	...
15	...	3	1	2	2	3	3	1	...	2	4	3	1	2	5	...	...
10	2	5	3	4	2	...	4	3	2	2	3	2	2	1	3	...	...
4	2	4	1	1	...	...	2	1	1	2	...	2	...	...	...	...	...
6	...	1	2	3	2	...	2	2	1	...	1	2	...	1	...	3	...
87	4	3	9	10	6	10	8	16	9	10	22	17	20	12	13	15	...
52	2	1	4	8	4	4	5	6	4	6	17	7	11	5	8	10	...
34	2	2	5	2	2	6	3	10	5	4	5	10	9	7	5	5	...
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
35	3	3	2	2	3	1	6	2	1	3	1	3	4	3	1	3	...
21	2	...	1	2	1	...	6	2	1	...	...	...	3	...	...	2	...
14	1	3	1	...	2	1	...	...	...	2	1	3	1	3	1	1	...
5	1	...	1	1	2	2	1	2	1	1	3	5	4	4	4	3	...
3	1	...	...	...	...	...	...	2	1	1	2	3	4	2	2	2	...
2	...	...	1	1	2	2	1	...	...	...	2	3	1	...	2	1	...
...	1	...	...	...	...	...	...	2	...	...	...	...	2	...	...	...	...
...	1	...	...	...	...	...	...	1	...	...	...	...	...	2	...	...	...
50	1	1	2	2	3	1	3	5	...	1	1	1	1	1	...	2	...
27	1	1	...	1	...	...	1	3	...	...	1	...	1	...	...	2	...
23	...	...	2	1	3	1	2	2	...	1	...	1	...	1	...	...	...
29	4	3	6	4	3	5	3	4	11	...	8	7	4	7	5	11	...
13	2	1	3	2	...	3	2	2	5	...	4	2	2	3	3	4	...
16	2	2	3	2	3	2	1	2	6	...	4	5	2	4	2	7	...
18	2	1	1	4	5	2	3	2	2	2	4	4	5	5	4	5	...
10	2	...	...	2	2	...	2	2	1	1	4	2	3	2	3	3	...
8	...	1	1	4	3	2	1	...	1	1	...	2	2	3	1	2	...
22	1	...	4	7	6	11	7	3	10	12	7	11	6	9	9	7	...
9	...	...	2	4	1	4	6	2	6	4	1	4	4	3	5	5	...
13	1	...	2	3	5	7	1	1	4	8	6	7	2	6	4	2	...
98	7	3	9	6	11	8	9	12	9	7	13	17	9	12	14	20	4
51	5	2	5	3	3	5	6	6	3	6	3	9	7	5	9	8	3
46	2	1	4	3	8	3	3	6	6	1	10	8	2	7	5	12	1
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
167	11	18	20	31	21	24	14	16	21	19	32	18	36	44	34	39	1
104	7	10	11	16	6	11	5	7	15	13	21	12	23	23	17	22	1
63	4	8	9	15	15	13	9	9	6	6	11	6	13	21	17	17	...
8	1	1	1	1	1	...	...	1	3	1	2	...	1	3	3	3	...
4	...	1	1	1	...	...	...	...	2	...	2	...	...	...	2	2	...
4	1	...	...	...	1	...	...	1	1	1	...	...	1	3	1	1	...

†Stillbirths not included.

VITAL STATISTICS OF MICHIGAN, 1899

TABLE VI.—Concluded.—Deaths in Michigan, by ages, cities

Cities. *	Sex.	Total deaths at all ages, 1899.*	Still-born.	Ages in years.				
				Under 1 year.†	1.	2.	3.	4.
St. Ignace.....	Total	34		9				2
	Males.....	23		6				2
	Fem.....	11		3				
St. Joseph.....	Total	65	3	17	2	2	4	1
	Males.....	42	2	12	2	1	1	
	Fem.....	23	1	5		1	3	1
St. Louis.....	Total	30	1	4	1	1	1	
	Males.....	14		3	1			
	Fem.....	16	1	1		1	1	
Sault Ste. Marie	Total	156	6	52	2		1	
	Males.....	90	4	27	1		1	
	Fem.....	66	2	25	1			
Stanton	Total	36			2			
	Males.....	20			2			
	Fem.....	16						
Sturgis	Total	33	1	2				
	Males.....	15	1	1				
	Fem.....	18		1				
Tawas City.....	Total	14	2	3		1		
	Males.....	4		1		1		
	Fem.....	10	2	2				
Three Rivers.....	Total	41	1	3	2			
	Males.....	23	1	2	1			
	Fem.....	18		1	1			
Traverse City.....	Total	161	7	29	1	1	1	1
	Males.....	75	3	13	1		1	
	Fem.....	86	4	16		1		1
West Bay City	Total	173	7	39	7	4	2	6
	Males.....	92	4	20	3	3	1	3
	Fem.....	80	2	19	4	1	1	3
	Unk.....	1	1					
Wyandotte.....	Total	69		18	1			1
	Males.....	40		15				
	Fem.....	29		3	1			1
Ypsilanti.....	Total	102	1	12		1	2	1
	Males.....	58	1	8				1
	Fem.....	44		4		1	2	

*Stillbirths included.

†Stillbirths not included.

DEATHS IN CITIES

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and sex, during the year 1899. (Stillbirths included.)

Ages in five-year periods.

Under 5 years.†	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 and over.	Unk.
11	1	1	2	2	2	2	2	1	3	1	1	1	3			1	2
8	1		1	1	1	1	2	1	1	1	1	1					2
3		1	1	1	1	1			2				1			1	
29		3	1	1	2	2	3	1	2	4	2	1	2	3	3	6	
18		2	1	1	1	1	2		2	4	2	1	1	2	2	3	
11		1			1	2	1	1					1	1	1	3	
8				1				1		5	2	3		1	4	5	
4				1						4	2	1	1		1		
4							1			1		2			3	5	
61	3	2	3	13	8	7	9	7	5	7	8	6	2	4	3	5	3
33	1	2	2	7	4	4	4	4	4	5	5	2	1	4	3	2	3
28	2		1	6	4	3	5	3	1	2	3	4	1			3	
2	2	1	1	4	3	2		1	2	2	1	5	7	1	1	1	
2	1	1	1		2				2	1	3	5	1	1	1		
	1			4	1	2		1		1	1	2	2			1	
3			2		1	1		2			1	7	2	5	4	5	
2								1			1	3	1	1	1	4	
1			2			1		1				4	1	4	3	1	
6	2		1			1			1			1	1			1	
2												1				1	
4	2		1			1			1				1				
6		1	2	1	1	2	1		6	2	3	5		4	5	2	
4		1		1	1	1			3		2	3		2	4	2	
2			2			2	1		3	2	1	2		2	1		
40	7	3	5	6	8	6	10	11	3	13	6	8	10	8	7		
18	3	2	3	3	2	3	3	8	2	6	2	3	6	6	6	3	
22	4	1	3	3	8	4	7	3	1	7	4	5	4	4	2	4	
65	9	3	13	4	6	6	6	6	10	4	5	11	6	7	4	8	
34	9		5	2	4	1	3	1	5	2	4	5	5	6	2	4	
30		3	8	2	2	5	3	5	5	2	1	6	1	1	2	4	
1																	
20			3	6	4	5	2	2	2	2	4	5	5	1	5	2	1
15			2	3	2	3		2	1		2	3	2	1	3	1	
5			1	3	2	2			1	2	2	2	3		2	1	1
17	1		3	8	2	3	3		3	4	12	4	9	11	6	16	
10				4		1	1		2	3	10	3	5	8	4	7	
7	1		3	4	2	2	2		1	1	2	1	4	3	2	9	

† Stillbirths not included.

TABLE VII.—Continued.—Causes of death in Michigan,

Classification No.	Causes of death, 1899.	All cities.	Cities—Adrian														
			Adrian.	Albion.	Alpena.	Ann Arbor.	An Sable.	Battle Creek.	Bay City.	Belding.	Benton Harbor.	Bessemer.	Big Rapids.	Cadillac.	Charlotte.	Cheboygan.	Clare.
22a	<i>Tuberculosis—</i> Lungs.....	926	10	3	13	7	16	26	2	10	7	10	5	4	3	2	
22b	Meninges.....	69			1	2				1			1		1		
22c	Peritoneum.....	53	1	1			1	1	1	2	1						
22d	Skin.....	1						1									
22e	Other organs.....	39	2		1	1	2								1		
22f	General.....	137	2		2	4	6		1	1			1	1			
23	Scrofula.....	8															1
24	Syphilis.....	46							1							1	
25a	<i>Cancer—</i> Mouth.....	10			1		1										1
25b	Stomach or liver.....	198	1	1	2	6	5	4	2			2	2	2	2		
25c	Intestines or rectum.....	38	1		1	2		1	1							1	
25d	Uterus.....	80	1			2	2	4				5				1	
25e	Breast.....	38	1	3		1		1				1	1	1			
25f	Skin.....	29	1						1			1					
25g	Other organs.....	141	4		1	3	5	4	1	4			1	1	1	1	
26-27	Rheumatism.....	115	4	3	1	2	3	3				2	1				
28	Diabetes.....	75			1		2	1					1			1	
29	Exophthalmic goitre.....	8				1	1										
30	Addison's disease.....	6					1										1
31	Leukemia.....	15				1		1									
32	Anemia, chlorosis.....	80		2	1	1	4	3	1					1	1		
33	Other general diseases.....	2					1										1
34	Alcoholism.....	41			1			1			1	1					
35-37	Chronic poisonings.....	7						1									
LOCAL DISEASES.																	
III. DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SENSE.																	
38	Encephalitis.....	64			1	1	1	1	1	1			1			1	2
39a	(Simple meningitis.....	131	1		3		2	5				1		2	1	4	
39b	Cerebrospinal meningitis....	309	1	2	1	1	11	4	1	1		3	12	1	2	1	
42	Cerebral congestion, hemorrhage.....	472	2	3	5	5	11	16	1	5	1	1	4	3	2	2	
43	Cerebral softening.....	31	2	1		1						1					
	Paralysis.....	258	5	3	4	7	4	5	1	4		1	2	4	1		

CAUSES OF DEATH IN CITIES

81

by cities, during the year 1899. (Stillbirths included.)

to Ishpeming.

Coldwater.	Corunna.	Crystal Falls.	Detroit.	Dowagiac.	East Tawas.	Eaton Rapids.	Escanaba.	Flint.	Gladstone.	Gladwin.	Grand Haven.	Grand Ledge.	Grand Rapids.	Greenville.	Harrison.	Hastings.	Hilledale.	Holland.	Hudson.	Ionia.	Iron Mountain.	Ironwood.	Ishpeming.	Classification No.
7	2	1	288	4	3	2	17	15	1	1	6	5	85	2	1	1	4	7	2	6	5	5	10	22a
			19				2						11									2		22b
	1		7				1				1		7	1					2			1	2	22c
																								22d
			9	1			1				1		3											22e
2	1		37	1			3	3					12	1		1	2				2	2	3	22f
			1					1					4											23
			31				1				1		3								1			24
			3																					25a
4	1		67	1			2	4			3		11		1	2				2	2	1	2	25b
			13		2			2			1	1						1						25c
1	1		23		1		1	1		1	1		6											25d
			10	1									3									1	1	25e
			4									1	4		2	1						1		25f
1			33	4		1	1	1			2	1	17	1		1		1				1		25g
2		1	42				1	2					7	1		1		1	2				1	26-27
1			27	1				3					4		1									28
			1										1									1		29
			1																					30
			5										2									1		31
			28					1			1		7		1				1		1	1	1	32
																								33
	1		14										5					1			1		2	34
			1				1	1					2											35-37
			10	1							1		10					2				2	1	38
2		1	43	1			1	1					22		1	1		1	1		2	2		39a
			75	1			7	1					56	1	3		9	7	3	3	3	3		39b
3	1		143	3		3	2	7	2	1	1	3	46	2	5	6	9	4	3		3	5		42
			4	1								1	1		1	1		1						43
3	1		62	3	2	3	1	4	2			3	20	4	1	4	1	1	1	2				44

TABLE VII.—Continued.—Causes of death in Michigan.

Classification No.	Causes of death, 1899.	Cities—Adrian															
		All cities.	Adrian.	Albion.	Alpena.	Ann Arbor.	Au Sable.	Battle Creek.	Bay City.	Belding.	Benton Harbor. Bessemer.	Big Rapids.	Cadillac.	Charlotte.	Cheboygan.	Clare.	
45	General paralysis of insane..	65	2			1		2	2								
46	Other forms of insanity.....	19				3											
47	Epilepsy.....	57			1	1	1	1	1								
48	Convulsions.....	2															
49	Convulsions of infants.....	251	1	2	3	3		1	6		2	2		1		3	
50	Tetanus.....	14			1			1									
40-41 51-54	Other nervous diseases.....	158	3	1	5	2	2	3	2		4	2				1	
	IV. DISEASES OF THE CIRCULATORY SYSTEM.																
55	Pericarditis.....	32			1			3	1				1				
56	Endocarditis.....	51				3			2	1							
57	Organic heart disease.....	833	15	9	8	14	1	15	22		5	2	5	5	8	7	
58	Angina pectoris.....	56	1					1	3		1					1	
59	Diseases of the arteries.....	41	1		1	4											
60	Embolism.....	6							1								
61	Varices, hemorrhoids.....	3							1								
62	Phlebitis.....	1															
63	Lymphangitis.....	2							1								
64	Other lymphatic diseases.....	2															
65	Hemorrhage.....	19				2					1	1					
66	Other circulatory diseases....	4				1											
	V. DISEASES OF THE RESPIRATORY SYSTEM.																
67	Diseases of the nose.....	1															
68	Disease of larynx and thyroid.	18			1					1							
69	Acute bronchitis.....	253	2	3	9	2		1	12		3					2	
70	Chronic bronchitis.....	135			3	2			4				1	1	1	1	
71	Broncho-pneumonia.....	138	1		1			3	3		3		2			1	
72	Pneumonia.....	902	6	5	12	13	1	20	21		1	5	7	4	2	5	
73	Pleurisy.....	54						1			1	1	1		1	1	
74	Congestion of the lungs.....	65			1			3	2		1	1		1		1	
75	Gangrene of the lungs.....	5									1						
76	Asthma and emphysema.....	75			1	1					1	2		1			
77	Other respiratory diseases....	65							2				2		1		

CAUSES OF DEATH IN CITIES

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by cities, during the year 1899. (Stillbirths included.)

to Ishpeming.

Coldwater.	Corunna.	Crystal Falls.	Detroit.	Dowagiac.	East Tawas.	Eaton Rapids.	Escanaba.	Flint.	Gladstone.	Gladwin.	Grand Haven.	Grand Ledge.	Grand Rapids.	Greenville.	Harrison.	Hastings.	Hillsdale.	Holland.	Hudson.	Ionia.	Iron Mountain.	Ironwood.	Ishpeming.	Classification No.
			5	2				2				1	2				1		1					45
			2																			1		46
1			14		1			1			1	1	5		1			1			1			47
			1																					48
			105	3			4	1			1		13	2				8	1	3	5	2		49
1			4	1				1					2											50
1	1		28			1	2	2	2		3		13		1	2			1			1		{ 40-41 51-54
	1		6					1				1	3			1								55
			20		2						1		5									1		56
8	2		255	6	1	5	4	18	1	1	7	2	72	2	1	9	4	2	4	10	2	11		57
1			11			1	1	4				1	3	1		3								58
			14	1		1		2			1		7			1								59
			1										1											60
			1															1						61
			1																					62
													2											63
																								64
			9				1						1									1		65
																								66
																							1	67
			5				1				1		2											68
			112			2	1						26	1				3		2	4	10		69
1			63	5			1	3				1	11	1			1	1	1	1	1	1		70
2			54				5		2				22				1			4		4		71
7	1	1	338	6	1	2	11	10	1	1	4	1	74			2	5	1	1	10	15	10		72
			16	1									3	1			1	1			1	1		73
			12	1				2					12		1		1							74
			2										1											75
	1		32					2					5		1			1		1	1			76
			21				1	3					11								1	1	1	77

1

1

Cities—Adrian

by cities, during the year 1899. (Stillbirths included.)

to Ishpeming.

Coldwater.	Corunna.	Crystal Falls.	Detroit.	Dowagiac.	East Tawas.	Eaton Rapids.	Escanaba.	Flint.	Gladstone.	Gladwin.	Grand Haven.	Grand Ledge.	Grand Rapids.	Greenville.	Harrison.	Hastings.	Hillsdale.	Holland.	Hudson.	Ionia.	Iron Mountain.	Ironwood.	Ishpeming.	Classification No.
			5										1											78
			3	1				1					1	1				1			2		1	79
			9					1					2									1	1	80
3	1		59		2		3		2				23		1		3				1	3	1	81
1	1		376		4	1	6	7	2	1	5		72	5	1	1	6	2	3		15	11	24	82
2			40	1		1	1	1				2	11	3				7		1	1		2	83
1			16			1	1						4					1						84
1			30	1	1		4	3	1				14	1		1		1	1			1		86
		1	5				2	1	1				6					1	1					85, 87
																								88
			22	1	1			2				1	1	1				1		4			1	90
2	1		40		1			1			1		11	1	1		1	1	1	1	1	1		89, 91, 92
1			51				2	1		1	3		20		1	1		1	1				3	93
			1																1					94
			38				2	1	1				7		1						3		1	95
			27				1				1		5								1			96
2	1		128	1		1	4	7	2		4	2	42	1	1	2		2	2		2	2	4	97
			15										1						1					98-100
																								101
1			16					1					7			1	1						3	102
			4					1					1					1						103-106
			9			1	1						2											111
			5				2						2											{ 109, 110, 112
			6										1	1										113
1			18				1						2											{ 107, 108, 114, 115
			15				2		1				1			1						2	1	{ 116, 118, 123, 124

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to Ishpeming.

Coldwater.	Corunna.	Crystal Falls.	Detroit.	Dowagiac.	East Tawas.	Eaton Rapids.	Escanaba.	Flint.	Gladstone.	Gladwin.	Grand Haven.	Grand Ledge.	Grand Rapids.	Greenville.	Harrison.	Hastings.	Hillsdale.	Holland.	Hudson.	Ionia.	Iron Mountain.	Ironwood.	Ishpeming.	Classification No.
1			34				1	1					8							1		1	{ 119, 120, 122	
			11				1	1					2										121	
			22										1					1				1	125	
			10											1								1	126	
																							127	
	1		4										2										128	
			5																				129	
						1							1										130	
																							131	
													1										133	
			6																		1		{ 132, 134, 136	
			22	1				1					6	2		1				2	1	1	137	
6	2	2	229	2		7	5	4				1	49		1	3		1	6	8	8	8	138a	
1			100		1	4	2			2	1	17		1	2	3			8	5	3		138b	
																						1	139	
			2										1										140	
			100	1		4	2		1	1	1	23	2	1			1	1					141	
			18			1				1			6										142a	
			1																				142b	
			6										1										142c	
			2																				142d	
			7					1		1			4							1	1	1	142e	
			1																				142f	
																							142g	
																							142h	
													1								1		142i	

AL STATISTICS OF MICHIGAN, 1899

TABLE VII.—Continued.—Causes of death in Michigan

		Cities—Adrian															
		ath, 1899.															
		All cities.	Adrian.	Albion.	Alpena.	Ann Arbor.	An Sable.	Battle Creek.	Bay City.	Belding.	Benton Harbor.	Bessemer.	Big Rapids.	Cadillac.	Charlotte.	Cheboygan.	Clare.
	B																
	I	76			1	1		4	4		2	1					
145d	Dis	7															
146	G	13						1									
146b	I																
146c	M	17									1						
146d	R	82				2		1			1		1			1	
145e	Vel	15				1			1	1							
146a	FI	53		3				1	1		1						1
146b	Hu	15			1				1								1
146c	Corr																
147a	{ Sunstroke.....	5															
147b	{ Freezing.....	1						1									
148	Accidental drowning.....	91			2			1	3	1	2		2	2			2
149	Starving.....																
150	Noxious gases.....	10												1			
151	Other accidental poisons.....	33	1		2				2		1		2			1	
152a	Other accidents.....	202	1	2	5	2	1	4	8				2		1	5	1
152b	C. Homicide. Homicide.....	14															
XV. CAUSES ILL-DEFINED.																	
153	Exhaustion, cachexia, debility	145	5	1		2	2	5	7						2	4	
154	Fever, inflammation.....	23	1														
155a	Dropsy.....	81	2					2	1	2			1		1		
155b	Heart failure.....	100	4		3	1		2		2			1				
156	Asphyxia cyanosis.....	3															
157	Sudden death.....	1															
158	Abdominal tumor.....	13						1		1			1		1		
159	Other tumors.....	5						1									
161	Unknown, not specified causes	117			4	2		2		2			2	1		1	

by cities, during the year 1899. (Stillbirths included.)

to Ishpeming.

Coldwater.	Corunna.	Crystal Falls.	Detroit.	Dowagiac.	East Tawas.	Eaton Rapids.	Escanaba.	Flint.	Gladstone.	Gladwin.	Grand Haven.	Grand Ledge.	Grand Rapids.	Greenville.	Harrison.	Hastings.	Hillsdale.	Holland.	Hudson.	Ionia.	Iron Mountain.	Ironwood.	Ishpeming.	Classification No.
1			28					3					6	1					1		1		4	143
			2																				1	144
			4		1			1					1					1						145a
																								145b
																					2	4	6	145c
			17	1		1	3	4	1		1	1	4					1	1	2	4	1	1	145d
			2					1					2								1		1	145e
			25	1									3									1		146a
			2				3						2											146b
																								146c
			3																					147a
																								147b
			15	2	1		1	2					2	1	1			1			2			148
																								149
			3										2											150
	1		9				2					1	3	1										151
	1		54	2	1		8	2	1			1	13	1	1	4			1		1	6		152a
		1	8										1					1					1	152b
		1	31	1				4					15	1	2								1	153
			9				1						3					2	1		1	1		154
			20		1		1	1			2		5	1				4	3		1			155a
2			16	1		2	2		1		2	1	5	1	1	1	4	1	3	1	2	1		155b
			1																		1			156
							1																	157
			3					1																158
													2											159
2			8	1		1	7	1	2	1	1		2	1				1	1		4	7	6	161

Classification No.	Causes of death, 1899.	Cities—Jackson														
		Jackson.	Kalamazoo.	Lansing.	Lapeer.	Ludington.	Manistee.	Marine City.	Marquette.	Marshall.	Mason.	Menominee.	Midland.	Monroe.	Mt. Clemens.	Mt. Pleasant.
	ALL CAUSES.....	316	443	206	51	102	192	62	157	69	35	232	42	78	101	48
	<i>Stillbirths</i> (included in above).	17	20	10	....	4	10	1	11	3	1	21	1	3	6	....
	GENERAL DISEASES.															
	I. EPIDEMIC DISEASES.															
1	Typhoid fever.....	9	5	1	....	1	....	1	7	3	1	28	2	2	2	2
1a	Typho-malarial fever.....	1	....	....	....	2	....	....	....	....	....	....	....	....	1	....
2	Typhus fever.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
3	Scurvy.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
4	Smallpox.....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....
5	Measles.....	....	....	....	....	5	8	....	1	....	....	1	....	....	....	5
6	Scarlet fever.....	....	....	1	....	....	....	2	....	....	....	3	....	....	....	....
7	Whooping cough.....	5	4	1	....	9	2	2	8	....	....	7	1	....	....	....
8a	Diphtheria.....	....	5	6	....	....	1	2	....	....	....	1	....	....	1	....
8b	Membranous croup.....	2	....	....	....	....	1	....	....	1	....	....	....	....	....	....
8c	Croup.....	1	....	1	....	....	....	....	....	....	....	....	....	....	1	....
9	Influenza.....	12	15	9	3	4	2	1	....	6	2	6	1	2	3	4
10	Miliary fever.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
11	Asiatic cholera.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
12	Cholera nostras.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
13a	Chicken pox.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
13b	German measles.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
13c	Mumps.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
13d	Trichinosis.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
	I. OTHER GENERAL DISEASES.															
14	Pyemia and septicemia.....	....	1	....	....	....	2	....	3	....	....	1	....	....	....	....
15	Glanders and farcy.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
16	Malignant pustule.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
17	Rabies.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
18	Relapsing fever.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
19-20	Malaria.....	3	3	1	1	1	....	....	....	....	....	1	....	....	2	....
21	Pellagra.....	....	....	....	....											

91

to Ypsilanti.

[illegible]

AL STATISTICS OF MICHIGAN, 1899

TABLE VII.—Continued.—Causes of Death in Michigan,

No.	Cause of Death, 1899.	Cities—Jackson														
		Jackson.	Kalamazoo.	Lansing.	Lapeer.	Ludington.	Manistee.	Marine City.	Marquette.	Marshall.	Mason.	Menominee.	Midland.	Monroe.	Mt. Clemens.	Mt. Pleasant.
	.....	17	40	10	1	4	16	5	11	4	2	12	2	7	12	6
	.....	1	1		1	1	2		2			7			1	
	.....	2	1				1		2			2		1		1
	S															
	Or		2	2							1	3				
	Ge		9	3		3	1		1			3	1	1	1	1
23	Scorbuta.....															
24	Syphilis.....	1														
25a	Cancer.															
	Mouth.....		1													
25b	Stomach or liver.....	7	4	4		1	5		3	1		2			3	
25c	Intestines or rectum.....	1	2						1				1			
25d	Uterus.....	3	2		1	1			1			1				
25e	Breast.....	1	3		2							1			1	
25f	Skin.....		1									1	2			1
25g	Other organs.....	2	3	3	4		1		1			2	1			1
26-27	Rheumatism.....	3	3	2			3				1	3			1	
28	Diabetes.....	6	4			1			1	1		1			1	
29	Exophthalmic goitre.....	1					1									
30	Addison's Disease.....	1														
31	Leukemia.....		3				2									
32	Anemia, chlorosis.....	2	4	1				1				1				
33	Other general diseases.....															
34	Alcoholism.....	2	2	1		1				1						
35-37	Chronic poisonings.....															
	LOCAL DISEASES.															
	III. DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SENSE.															
38	Encephalitis.....	4	2			2			1			2				
39a	Simple meningitis.....	4	1	1	1			1	1			6	1	1		
39b	Cerebrospinal meningitis.....	6	5	2	2	4	18	3	10	1		1	2	1	1	2
42	Cerebral congestion, hemorrhage.....	9	31	4	3	1	2	1	1	5	1	2	2	2	2	1
43	Cerebral softening.....	4	5			1									1	
44	Paralysis.....	8	2	11	1	2	1	1	1		1	1	2	7	2	

CAUSES OF DEATH IN CITIES

93

by counties, during the year 1899. (Stillbirths included.)

to Ypsilanti.

Muskegon.	Negaunee.	Niles.	N. Muskegon.	Norway.	Owosso.	Petoskey.	Pontiac.	Port Huron.	Saginaw.	St. Clair.	St. Ignace.	St. Joseph.	St. Louis.	Sault Ste. Marie.	Stanton.	Sturgis.	Tawas City.	Three Rivers.	Traverse City.	West Bay City.	Wyandotte.	Ypsilanti.	Classification No.
27	4	6	..	2	6	7	11	10	33	1	5	4	2	15	4	4	1	1	11	11	4	10	22a
1	..	1	....	..	1	1	....	2	2	....	..	..	..	2	....	..	..	..	2	1	....	..	22b
1	..	..		..	2	..	....	..	3	....	..	..	..	1	....	..	..	1	2	....	1	1	22c
..	..	..		..	..	..		..	..		..	..	..	..		..	..	..	..	..	..	..	22d
1	..	1	....	..	..	..	1	....	3	....	..	..	..	1	....	..	..	..	..	1	1	..	22e
2	..	..	..	1	..	2	....	5	9	..	..	1	..	..	..	1	..	1	2	1	..	..	22f
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	23
..	..	..	..	..	..	..	..	1	2	..	..	1	..	1	..	..	..	..	1	..	..	..	24
..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	1	..	..	..	25a
5	2	..	..	..	3	..	4	5	8	..	..	1	..	..	1	2	1	3	1	1	1	..	25b
..	..	..	..	..	1	..	..	1	3	..	..	..	..	..	..	..	..	..	..	..	1	..	25c
..	..	..	..	1	2	1	1	1	8	..	1	..	..	..	..	..	..	2	..	2	..	1	25d
..	..	..	..	..	..	..	..	..	2	1	..	..	..	..	1	..	..	..	1	..	..	..	25e
2	..	1	..	..	..	..	1	..	3	..	..	1	..	..	..	..	..	..	..	..	..	..	25f
7	..	1	..	..	2	1	1	1	7	..	..	1	..	..	..	..	..	2	3	3	1	2	25g
1	..	..	..	..	..	..	1	1	6	..	..	2	..	3	1	1	..	..	1	..	..	2	26-27
1	..	2	..	..	1	..	..	4	5	..	..	..	1	1	..	..	..	1	..	1	..	..	28
..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	29
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	30
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	31
..	1	1	..	1	4	..	..	2	3	..	..	..	..	..	..	..	..	..	2	..	1	1	32
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	33
..	..	..	..	..	..	..	..	1	..	..	..	2	..	2	..	..	..	..	..	1	..	..	34
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	35-37
..	..	..	..	1	..	..	..	1	2	2	2	..	..	1	..	..	..	..	..	1	1	..	38
..	..	..	..	..	..	..	..	..	2	..	1	..	..	1	..	..	..	..	2	1	..	..	39a
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	..	2	2	9	..	..	39b
..	..	..	..	..	..	..	..	..	..	..	..	..	3	1	2	2	..	1	4	9	..	2	42
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	43
..	..	..	..	..	..	..	..	..	1	3	1	2	..	1	3	1	2	..	2	1	..	8	44

TABLE VII.—Continued.—Causes of death in Michigan.

[illegible]

ITAL STATISTICS OF MICHIGAN, 1899

TABLE VII.—Continued.—Causes of death in Michigan,

No.	Cause of death, 1899.	Cities—Jackson														
		Jackson.	Kalamazoo.	Lansing.	Lapeer.	Ludington.	Manistee.	Marine City.	Marquette.	Marshall.	Mason.	Menominee.	Midland.	Monroe.	Mt. Clemens.	Mt. Pleasant.
	VI. DISEASES OF THE DIGESTIVE SYSTEM.															
78	Diseases of the mouth.....															
79	Diseases of the pharynx and esophagus.....															
80	Ulcers of stomach.....	1		1					1	1		1		1		
81	Other diseases of stomach.....	4	5	7		2	4		2	2		1		2	1	
	Cholera infantum.....	6	15	9		6	15	2	15	3	4	23	3	2	6	2
83	Diarrhea and enteritis.....	6	4	6	1	2	3	3	3	2	2		2			1
84	Dysentery.....		3	2			2		1	1	2		1			
86	Hernia and intestinal obstructions.....	3	3				2		1		1	2	3	3	1	1
85, 87	Other diseases of the intestines.....	3	2						1	2			2	1	1	
88	Acute yellow atrophy of liver..									1						
90	Cirrhosis of the liver.....	2		2		2	1		1						1	
89, 91, 92	Other diseases of the liver.....	1	3	2	2		1						1		2	
93	Peritonitis.....	3	5	2	1	2	3	1	4		1		1		1	1
94	Other diseases of the digestive system.....															
95	Iliac abscess.....		4	2		2	1			1	1					1
	VII. DISEASES OF THE GENITO-URINARY SYSTEM.															
96	Acute nephritis.....			1		1	2	1						1		
97	Bright's disease.....	15	21	5	1		3	1	9	5		4		2	7	
98-100	Other diseases of the kidneys..	3	1				1									
101	Vesical calculi.....															
102	Diseases of the bladder.....	4	1								1					1
103-106	Diseases of male genital organs.....			2										1		
111	Uterine tumor.....	1													1	
109, 110, 112 }	Other uterine diseases.....															
113	Ovarian tumors.....			2							1					
107, 108, 114, 115 }	Other diseases of the female genital organs.....	1	3								1				2	

CAUSES OF DEATH IN CITIES

97

by cities, during the year 1899. (Stillbirths included.)

to Ypsilanti.																							Classification No.
Muskegon.	Negaunee.	Niles.	N. Muskegon.	Norway.	Owosso.	Petoskey.	Pontiac.	Port Huron.	Saginaw.	St. Clair.	St. Ignace.	St. Joseph.	St. Louis.	Sault Ste. Marie.	Stanton.	Sturgis.	Tawas City.	Three Rivers.	Traverse City.	West Bay City.	Wyandotte.	Ypsilanti.	
					1			1				1											78
	1			1					2			1											79
										1		1						1		1			80
1	2	2			3	1		7	4		1		2	2			2		5	1	2	3	81
10	4			13	2	7	4	20	19	2	3	5	2	16	1		2	1	10	8	7	2	82
5	2	2		1	3	1	1	4	4		1	1		2	2	2			3	2	1	3	83
5		1		1	1			2	1													3	84
						1	2	4	2	1		2		1									86
1				1																1			85, 87
																							88
								2	2	1			1										90
1				1		2	3	3	3					1	3	1		1		6		4	{ 89, 91, 92
1	1		1			2		3	3	1	1							1	3	3	1	1	93
																					1		94
3				2	1				8					1							2		95
	3				1			1	6										1				96
12	1			1	4	4	6	6	11	2		1	1	1	1				5	11	1	3	97
2							1	1	3							2				1			98-100
																							101
1					1				5										1	1			102
					1			1	2														103-106
																							111
									1	1											1		{ 109, 110, 112
									1														113
									3											1			{ 107, 108, 114, 115

TABLE VII.—Continued.—Causes of death in Michigan,

Classification No.	Causes of death, 1899.	Cities—Jackson														
		Jackson.	Kalamazoo.	Lansing.	Lapeer.	Ludington.	Manistee.	Marine City.	Marquette.	Marshall.	Mason.	Menominee.	Midland.	Monroe.	Mt. Clemens.	Mt. Pleasant.
VIII. PUERPERAL DISEASES.																
116-118, } 123, 124 }	Accidents of pregnancy.....	2				1								1		
119, } 120, 122 }	Puerperal septicemia.....	5	2	2	1		1	1		1		1	1			
121	Puerperal albuminuria.....	1														
IX. DISEASES OF THE SKIN AND CELLULAR TISSUE.																
125	Erysipelas.....	1	4	2				2	1			1				
126	Gangrene.....	1		1				1								
127	Anthrax.....															
128	Phlegmon, acute abscess.....						1							1		
129	Other diseases of the skin.....															
X. DISEASES OF THE LOCOMOTOR SYSTEM.																
130	Pott's disease.....		1									1				
131	Chronic or cold abscess.....															
133	White swellings.....															
132, } 134-136 }	Other diseases of locomotor system.....		2													
XI. MALFORMATIONS.																
137	Malformations.....		4			1	1						1			
XII.—DISEASES OF INFANCY.																
138a	Congenital debility.....	3	9	3	1	2	7	3	5	2		14	1	1		
138b	Premature birth.....	8	11	1		1	5	2	2		1	6		1		2
139	Want of care.....	1	1				1									
140	Other diseases of infancy.....			2					1		1					
XIII.—DISEASES OF OLD AGE.																
141	Senile debility.....	3	3	3	2		3	1	1	1	1	2				
XIV—VIOLENCE.																
A. Suicide—																
142a	Poison.....		1	1												
142b	Asphyxia.....															
142c	Strangulation.....	1	1						1					2	1	
142d	Drowning.....															
142e	Firearms.....		1				1							1		
142f	Cutting instruments.....		1							1	2					
142g	Fall from height.....															
142h	Crushing.....															
142i	Other methods.....						1					1				

CAUSES OF DEATH IN CITIES

99

s, during the year 1899. (Stillbirths included.)

intl.

N. Muskegon.	Norway.	Owosso.	Petokey.	Pontiac.	Port Huron.	Saginaw.	St. Clair.	St. Ignace.	St. Joseph.	St. Louis.	Sault Ste. Marie.	Stanton.	Sturgis.	Tawas City.	Three Rivers.	Traverse City.	West Bay City.	Wyandotte.	Ypsilanti.	Classification No.
		1			2	3					1						1			{ 116-118 123-124
	1										1					3	2		1	{ 119, 120, 122
					1							1								121
			1			2						1								125
				1	1	3		1			1					1		1		126
																				127
		1															1			128
																				129
					1	1		1									1	1		130
																				131
																1				133
		1			2	1														{ 132, 134, 136
		2	2	2	1		2				1								1	137
1	5	2	2	2	8	16			1		3					4	6	1	2	138a
		1		2	5	7		2			2				1	1	1	1		138b
					1															139
	1																		1	140
1			2		6	5			3						1	2	1		4	141
				1																142a
																				142b
				1															1	142c
																		1		142d
																			1	142e
																			1	142f
																				143g
																				142h
															1					142i

TABLE VII.—Concluded.—Causes of death in Michigan.

Classification No.	Causes of death, 1899.	Cities—Jackson														
		Jackson.	Kalamazoo.	Lansing.	Lapeer.	Ludington.	Manistee.	Marine City.	Marquette.	Marshall.	Mason.	Menominee.	Midland.	Monroe.	Mt. Clemens.	Mt. Pleasant.
143	<i>B. Accidents—</i> Fractures.....	1	2			1	1		2			2				
144	Dislocations.....		1						1					1	1	
145a	{ Gunshot.....	1	1													
145b	{ Lightning.....															
145c	{ Mining accidents.....															
145d	{ Railroad accidents.....	3	2	1	1		2		1							
145e	{ Vehicles and horses.....						1									
146a	{ Fire (burn).....	3	1	1					2							
146b	{ Hot liquid (scald).....			1			1	1							1	
146c	{ Corrosive substance.....															
147a	{ Sunstroke.....	1														
147b	{ Freezing.....															
148	Accidental drowning.....	2	2	2		1	1	1	2		1	1	1	1	1	
149	Starving.....															
150	Noxious gases.....	1														
151	Other accidental poisons.....	1	1												1	1
152a	Other accidents.....	3	6	3		3	3		7			3	2	1	3	2
152b	<i>C. Homicide—</i> Homicide.....															
	XV. CAUSES ILL-DEFINED.															
153	Exhaustion, cachexia, debility.....	8	3	2			1		2			2		4	1	2
154	Fever, inflammation.....	1			1			1		1						
155a	Dropsy.....	3	3	2	1			1				1		2		
155b	Heart failure.....	1	4	1	1	1	1	2							1	
156	Asphyxia, cyanosis.....								1							
157	Sudden death.....															
158	Abdominal tumor.....															
159	Other tumors.....	1														
161	Unknown, not specified causes.....			1		1	5	3		1		6		3	1	

CAUSES OF DEATH IN CITIES

101

by cities, during the year 1899. (Stillbirths included.)

to Ypsilanti.																							Classification No.
Muskegon.	Negaunee.	Niles.	N. Muskegon.	Norway.	Owosso.	Petoskey.	Pontiac.	Port Huron.	Saginaw.	St. Clair.	St. Ignace.	St. Joseph.	St. Louis.	Sault Ste. Marie.	Stanton.	Sturgis.	Tawas City.	Three Rivers.	Traverse City.	West Bay City.	Wyandotte.	Ypsilanti.	
				1					5		1			1								1	143
																							144
1								1															145a
																							145b
	2			1																			145c
	2				1	1	1	3	7		1	2		2						1	1	1	145d
								1							1	1		1					145e
3				1			1		2												1	1	146a
									1														146b
											1												146c
																							147a
																							147b
1		1		1				9	6		1	2		5				1	2	1	2	1	148
																							149
									2													1	150
2								1															151
5	1			2	2			6	8			1		4					1	1	4	2	152a
								1									1						152b
																							153
1					2	1		5	11					1				1	7	3	1	3	154
																							155a
5							2		4				1			3	1		2	1		1	155b
3	3			1	1		3	5	3		1			4					2				156
																							157
																							158
				1		1			1		1						1						159
									1														160
5	2			1		1	3		2					21			1						161

NOTE ON DEATHS RETURNED FROM NON-REGISTRATION TOWNSHIPS FOR 1899.

The registration law provides that the filing of certificates of death and the issuing of burial or removal permits based thereon shall be applicable only to townships having a population of five persons to the square mile, according to the last Federal or State census, and that townships below this limit shall remain under the old registration law, which provides for an enumeration of deaths by the supervisor and a return by him to the county clerk, between the dates of April 10 and June 1, and a return by the county clerk to the Secretary of State of a transcript of the same on or before the first day of September in each year, the deaths covering the previous calendar year. As these returns are few in number, presumably quite imperfect, and are not based, so far as regards the statements of cause of death, upon physicians' certificates, it seemed inexpedient to delay the appearance of the Reports under the new law, which were compiled before the arrival of these returns at the State Department, in order to include the small additional number. It may be said that quite a number of these non-registration districts have expressed a desire to come under the operation of the law requiring burial permits, and some of them, indicated by asterisks, have made regular monthly reports which have been compiled with those made by the registrars of the regular registration districts. By an act passed by the Legislature of 1901, in immediate effect on March 18, 1901, all of the former non-registration districts are included under the law requiring burial permits. Following is a statement, by counties, of the deaths so returned for the year 1899, with population by State census of 1894:

ALCONA COUNTY, 1,352. Caledonia, 233—2 deaths; Curtis, 345—4 deaths; Hawes, 292; Mikado, 276—5 deaths; Millen, 118; Mitchell, 88—1 death.

ALGER COUNTY, 1,385. Au Train, 280—3 deaths; Burt, 240—43 deaths; Mathias, 212—4 deaths; Munising, 367; Onota, 138—no deaths; Rock River, 148—no deaths; Limestone,—3 deaths.

ALPENA COUNTY, 249. Ossineke, 249.

ARENAC COUNTY, 31. Turner,* 31.

BARAGA COUNTY, 561. Arvon, 288—1 death; Covington, 88—4 deaths; Spurr, 185—no deaths.

BENZIE COUNTY, 171. Lake, 171—1 death.

CHARLEVOIX COUNTY, 128. Hudson, 128.

CHEBOYGAN COUNTY, 1,485. Burt, 461—4 deaths; Ellis,* 163; Forest, 154—3 deaths; Grant,* 490; Waverly, 110; Wilnot, 107—3 deaths.

CHIPPewa COUNTY, 1,665. Dafer, 498—5 deaths; Drummond, 408—3 deaths; Rudyard, 240—4 deaths; Trout Lake, 89; White Fish, 430.

CLARE COUNTY, 653. Franklin, 178—no deaths; Frost, 174—no deaths; Hayes, 171—1 death; Summerfield, 130—1 death.

CRAWFORD COUNTY, 1,145. Ball, 120; Beaver Creek, 108—2 deaths; Blaine, 97; Center Plains, 152; Frederick, 253; Grove, 95; Maple Forest, 212; South Branch,* 108.

DELTA COUNTY, 1,221. Baldwin, 460—2 deaths; Escanaba, 402—4 deaths; Maple Ridge, 359.

DICKINSON COUNTY, 1,753. Breen, 347—no deaths; Felch, 589—3 deaths; Sagola, 360—4 deaths; Waucedah, 457—no deaths.

EMMET COUNTY, 379. Bliss, 239; Eggleston, 140.

GLADWIN COUNTY, 896. Bentley,* 268; Billings,* 122; Buckeye, 254; Clement, 91—1 death; Sherman, 161—1 death.

GOGEBIC COUNTY, 1,422. Bessemer, 498; Ironwood, 238; Marenisco, 144; Watersmeet, 542.

HOUGHTON COUNTY, 231. Laird, 231.

ISOSCO COUNTY, 790. Oscoda,* 225; Plainfield, 242—2 deaths; Wilber, 323—3 deaths.

IRON COUNTY, 931. Atkinson, 566—5 deaths; Hematite, 264—3 deaths; Mansfield, 101—2 deaths; Mastodon—no deaths.

KALKASKA COUNTY, 479. Cold Springs, 123—5 deaths; Garfield, 165—4 deaths; Glade, 122; Oliver, 69.

KEWEENAW COUNTY, 139. Grant, 139—1 death.

LAKE COUNTY, 243. Lake, 89—no deaths; Pleasant Plains, 71—3 deaths; Webber, 83—2 deaths.

LUCE COUNTY, 1,212. Columbus, 57; Lakefield, 191—1 death; McMillan, 776; Pentland, 188—15 deaths.

MACKINAC COUNTY, 2,225. Brevort, 291—3 deaths; Garfield,* 442; Hendricks, 204—4 deaths; Marquette, 382; Moran, 370—4 deaths; Portage, 158; St. Ignace, 203; Bois Blanc; Sherwood.

MARQUETTE COUNTY, 2,178. Ely, 531—3 deaths; Forsyth, 442—7 deaths; Humboldt,* 263; Marquette, 220; Richmond,* 63; Sands,* 248; Skandia, 268—2 deaths; Turin, 143; West Branch,—4 deaths.

MASON COUNTY, 355. Branch,* 355.

MENOMINEE COUNTY, 414. Holmes, 414.

MIDLAND COUNTY, 167. Greendale,* 167; Mills,—2 deaths.

MISSAUKKEE COUNTY, 970. Bloomfield, 154; Etna, 328—1 death; Norwich,* 325; West Branch, 163—2 deaths.

MONTMORENCY COUNTY, 1,357. Briley, 180; Hillman, 361—2 deaths; Montmorency, 265—1 death; Rust, 291—1 death; Vienna, 130—1 death; Wheatfield, 130.

* These districts made monthly reports.

OCEANA COUNTY, 156. Otto,* 156.

OGEMAW COUNTY, 820. Beaver Lake, 97; Foster, 136; Goodar, 172; Hill, 77; Logan, 95—1 death; Mills, 81—1 death; Ogemaw, 162.

ONTONAGON COUNTY, 1,166. Bohemia, 172; Carp Lake, 53; Ontonagon,* 421; Rockland, 520.

OSCODA COUNTY, 1,626. Atherton, 69; Comins, 410—5 deaths; Elmer, 351—2 deaths; Greenwood, 79; Harmon, 183; Mentor, 449—no deaths; Mt. Pindus, 85.

OTSEGO COUNTY, 824. Charlton, 131; Chester, 212—1 death; Dover, 184—1 death; Hayes, 297—2 deaths.

PRESQUE ISLE COUNTY, 1,139. Aills, 288; Bearinger, 270; Bismarck, 134; Case, 271; Presque Isle, 176.

ROSCOMMON COUNTY, 941. Denton, 65—3 deaths; Gerrish, 64; Markey, 39—1 death; Nester, 211—no deaths; Richfield, 79—no deaths; Roscommon, 186—no deaths; St. Helens, 297—no deaths.

SCHOOLCRAFT COUNTY, 2,258. Doyle,* 621—3 deaths; Germfask, 210; Harrison, 558—no deaths; Manistique,* 353; Seney, 516—4 deaths.

WEXFORD COUNTY, 157. Slagle,* 157.

The total population of non-registration townships was 35,274, from which 4,357 may be deducted for districts regularly reporting under the new law, leaving a remainder of 30,917 from which only the returns of deaths from supervisors were received. There were 210 deaths so reported, 43 of these coming from Grand Marais village, Burt township, Alger county.

*These districts made monthly reports.



TABLES
RELATING TO
MARRIAGES
IN
MICHIGAN
DURING THE
YEAR 1899.

PRIMARY TABLES RELATING TO MARRIAGES IN MICHIGAN DURING THE YEAR 1899.

TABLE I.—Marriages in Michigan, by months and counties, during the year 1899.

TABLE II.—Persons married in Michigan, by ages, counties and sex, during the year 1899.

TABLE III.—Marriages and persons married in Michigan, by nativity and counties, during the year 1899.

TABLE IV.—Marriages in Michigan, by ages of males and females married, during the year 1899.

TABLE V.—Probate marriages in Michigan, by ages of males and females married, during the year 1899.

NOTE.—*Secondary tables* containing marriage rates and other ratios, and *comparative tables*, displaying the facts relative to marriages in Michigan for the year 1899 in connection with previous years and other states and countries, may be found on preceding pages of this Report, together with the descriptive text.

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TABLE I.—Marriages in Michigan, by months and counties, during the year 1899.

State and counties.	Year. 1899.	Months, 1899.											
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
STATE	21,877	1,343	1,311	1,324	1,765	1,581	2,185	1,681	1,767	2,095	2,323	2,464	2,038
Alcona.....	38	1	3	3	4	4	4	5	4	3	3	3	1
Alger.....	43	3	1	3	3	5	1	4	1	7	3	6	6
Allegan.....	323	18	27	28	35	19	26	22	17	22	30	45	34
Alpena.....	174	11	9	9	18	19	22	13	7	16	17	15	18
Antrim.....	150	7	9	6	17	17	13	6	10	20	16	15	14
Arenac.....	73	5	4	6	8	12	7	8	6	5	3	3	6
Baraga.....	26	2	1	2	3	4	3	2	3	1	2	1	2
Barry.....	227	18	10	27	18	19	17	12	10	15	35	28	15
Bay.....	506	41	42	17	54	43	58	34	34	43	60	54	26
Benzie.....	72	2	2	5	3	4	9	6	8	4	7	7	15
Berrien.....	1,077	25	35	30	39	36	98	174	222	185	82	88	63
Branch.....	296	18	26	28	29	14	24	14	12	22	39	42	28
Calhoun.....	476	27	30	33	32	35	48	30	38	38	51	57	57
Cass.....	219	17	17	23	17	11	19	17	10	20	23	25	20
Charlevoix.....	136	7	2	3	6	8	12	14	10	18	10	19	27
Cheboygan.....	130	11	7	8	5	10	12	10	14	11	12	16	14
Chippewa.....	165	15	5	13	12	9	18	14	7	14	17	18	23
Clare.....	69	7	4	5	8	5	8	8	4	2	6	5	7
Clinton.....	234	11	18	16	21	15	15	16	15	14	28	37	28
Crawford.....	23	.....	5	.....	2	4	3	1	3	2	1	.....	2
Delta.....	215	11	11	8	22	20	22	27	17	28	23	17	9
Dickinson.....	161	7	7	5	17	15	18	18	12	13	18	16	15
Eaton.....	337	19	25	20	20	17	31	17	32	29	43	34	41
Emmet.....	132	6	6	6	11	14	10	19	13	17	14	8	8
Genesee.....	404	22	21	22	33	32	46	27	22	40	48	57	34
Gladwin.....	47	2	4	6	5	2	2	2	3	5	5	8	3
Gogebic.....	148	15	7	5	7	12	28	1	12	21	13	15	12
Grand Traverse.....	217	11	14	16	17	24	9	27	14	20	26	23	16
Gratiot.....	312	16	28	24	27	18	24	22	27	22	27	35	42
Hillsdale.....	308	14	21	24	27	22	29	20	23	27	29	43	29
Houghton.....	645	40	24	16	39	45	67	46	75	76	77	79	61
Huron.....	253	27	15	14	23	21	16	15	19	11	36	36	20
Ingham.....	401	19	36	24	28	24	33	30	28	35	49	46	49
Ionia.....	314	32	17	19	22	22	24	22	24	32	36	28	36
Iosco.....	71	7	8	3	8	4	1	8	13	.....	2	9	8
Iron.....	69	.....	3	*4	6	5	7	4	8	9	9	5	9
Isabella.....	187	13	13	13	15	9	8	16	15	26	28	9	22
Jackson.....	504	41	32	37	38	37	55	30	38	32	55	59	50
Kalamazoo.....	456	19	33	37	32	40	25	60	31	46	56	39	38
Kalkaska.....	79	5	5	7	2	5	6	8	3	6	10	10	12
Kent.....	1,303	101	77	88	99	106	139	93	90	126	134	129	121
Keweenaw.....	19	1	.....	2	2	2	2	.....	2	2	3	1	2
Lake.....	50	4	.....	4	3	4	4	7	3	5	4	5	7
Lapeer.....	244	13	19	22	16	18	24	12	18	25	20	33	24
Leelanau.....	77	4	4	5	6	8	8	2	6	6	7	14	7
Lenawee.....	459	30	31	39	34	26	49	20	37	42	46	57	48
Livingston.....	173	9	15	21	10	9	13	5	17	20	16	16	22
Luce.....	22	1	2	.....	4	1	2	4	1	3	3	.....	1
Mackinac.....	57	3	4	3	6	3	8	4	4	7	7	6	2
Macomb.....	229	17	18	13	26	16	15	12	11	25	20	24	32
Manistee.....	210	15	17	15	11	21	24	15	14	20	25	27	6
Marquette.....	367	27	15	12	27	30	40	25	30	39	36	40	36
Mason.....	140	5	6	7	11	9	14	14	12	17	12	16	17
Mecosta.....	175	12	14	9	7	9	18	18	14	15	18	22	19
Menominee.....	214	11	3	2	16	6	30	31	25	24	22	23	21
Midland.....	118	6	6	14	12	9	11	11	9	10	11	7	12
Missaukee.....	80	4	3	3	10	7	8	8	5	6	10	7	9
Monroe.....	314	25	25	15	23	19	29	17	18	39	36	41	27
Montcalm.....	318	19	28	32	38	20	27	11	26	25	34	30	28
Montmorency.....	15	.....	1	1	2	5	1	.....	2	1	.....	2	.....

TABLE I.—Concluded.—Marriages in Michigan, by months and counties, during the year 1899.

Counties.	Year. 1899.	Months, 1899.											
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Muskegon.....	308	17	11	19	15	17	35	34	28	30	28	45	29
Newaygo.....	158	8	12	15	22	11	9	16	9	14	13	11	18
Oakland.....	320	18	32	26	29	21	32	23	19	22	29	32	30
Oceana.....	161	11	10	16	14	12	14	9	13	14	13	17	18
Ogemaw.....	59	2	5	7	10	8	7	2	7	.....	4	5	2
Ontonagon.....	31	.....	2	1	.....	2	3	4	4	4	2	6	3
Oscoda.....	160	10	2	13	16	14	12	14	19	16	11	11	22
Oscoda.....	5	.....	.....	.....	2	.....	.....	.....	.....	1	1	.....	1
Otsego.....	57	7	4	2	6	6	9	5	3	3	4	5	3
Ottawa.....	291	13	11	31	30	30	30	17	15	31	30	26	27
Presque Isle.....	68	2	2	2	10	10	10	3	6	4	8	6	5
Roscommon.....	12	.....	2	.....	.....	1	.....	.....	3	1	.....	2	2
Saginaw.....	698	56	36	27	74	60	71	55	34	70	73	76	66
St. Clair.....	483	37	37	28	29	45	58	29	25	41	51	44	59
St. Joseph.....	217	14	14	23	27	10	18	20	11	16	21	32	11
Sanilac.....	287	21	20	19	25	15	34	17	13	14	30	40	39
Schoolcraft.....	71	5	4	2	7	6	6	7	5	6	8	9	6
Shiawassee.....	369	26	26	31	28	25	33	21	35	28	35	48	33
Tuscola.....	297	17	14	18	29	14	15	22	25	23	44	35	41
Van Buren.....	322	21	18	22	21	28	27	25	16	29	37	47	31
Washtenaw.....	357	25	23	25	30	25	42	21	41	16	33	37	39
Wayne.....	2,677	138	140	105	226	200	356	187	216	279	318	341	171
Wexford.....	178	16	11	10	10	12	20	11	12	19	17	22	18

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TABLE II.—Persons married in Michigan, by ages, counties and sex, during the year 1899.

State and counties.	Total marriages, 1899.	Sex.	Number of persons married, by periods of age, 1899.															
			Under 20 years.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 to +.	Unk.	
STATE.....	21,877	Total .. Males.. Fem...	6,241 378 5,863	17,321 8,181 9,140	10,250 6,721 3,529	4,074 2,825 1,249	2,174 1,424 750	1,175 719 456	868 548 320	553 344 209	447 281 166	304 200 104	187 137 50	93 76 17	33 26 7	12 11 1	22 6 16	
Alcona.....	38	Total .. Males.. Fem...	15 1 14	32 15 17	7 7	10 8 2	3 2 1	5 3 1	2 3 1	1 1	..... ..... .....	..... ..... .....	1 1 .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	
Alger.....	43	Total .. Males.. Fem...	13 13	27 11 16	19 14 16	18 12 6	5 3 2	3 2 1	1 2	 1 .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	
Allegan.....	323	Total .. Males.. Fem...	126 17 109	240 116 124	135 86 49	58 48 10	26 16 10	17 14 9	16 9 7	7 3 4	10 6 4	4 3	4 3 1	2 1 1	1 1	..... ..... .....	..... ..... .....	
Alpena.....	174	Total .. Males.. Fem...	63 1 62	133 62 71	96 67 29	23 19 4	13 11 2	12 6 6	6 2	2 ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	
Antrim.....	150	Total .. Males.. Fem...	63 3 60	112 62 50	69 47 22	24 16 8	10 8 2	7 5	2 2	4 1	3 2	5 3	1 2	 1	1 ..... .....	..... ..... .....	..... ..... .....	
Arenac.....	73	Total .. Males.. Fem...	34 1 33	54 28 26	27 21 6	10 7 3	7 6 1	3	4 2 2	3 2 1	2 2	1 ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	1 1	
Baraga.....	26	Total .. Males.. Fem...	11 1 10	17 7 10	11 8 3	9 7 2	1	 1	2 1	 1	1 ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	
Barry.....	227	Total .. Males.. Fem...	71 4 67	186 95 91	106 70 36	33 22 11	16 12 4	6 5 2	12 5 7	6 3 3	2 1 1	7 4 3	6 4 2	3 3 .....	..... ..... .....	..... ..... .....	..... ..... .....	
Bay.....	506	Total .. Males.. Fem...	146 9 137	410 192 218	266 178 88	80 60 20	46 29 17	18 10 9	14 9 4	8 6 4	8 4 2	9 6 5	3 2 1	1 1	2 1	1 1	1	
Benzie.....	72	Total .. Males.. Fem...	26 1 25	54 28 26	30 21 9	13 10 3	6 5 1	3 2	2 2	5 3	1 1	2	2 1	 1	..... ..... .....	..... ..... .....	..... ..... .....	
Berrien.....	1,077	Total .. Males.. Fem...	279 18 261	874 415 459	496 312 184	226 157 69	127 75 52	64 41 23	39 27 12	24 13 11	10 9 4	8 4 1	3 3	2 2 .....	..... ..... .....	..... ..... .....	2 1 1	
Branch.....	296	Total .. Males.. Fem...	110 9 101	247 131 116	114 81 33	40 23 17	25 17 8	14 11 3	12 5 7	5 3 2	9 7 2	7 2 5	4 2	4 1	1 ..... .....	..... ..... .....	..... ..... .....	
Calhoun.....	476	Total .. Males.. Fem...	111 7 104	409 202 207	206 123 83	84 56 28	47 24 23	34 23 11	27 17 10	6 5 1	11 6 5	5 4 1	8 5 3	3 3	1 1	..... ..... .....	..... ..... .....	
Cass.....	219	Total .. Males.. Fem...	74 6 68	175 89 86	82 57 25	44 29 15	21 11 10	16 10 6	7 5	9 2	5 3 2	4 ..... .....	..... ..... .....	1 1	..... ..... .....	..... ..... .....	..... ..... .....	
Charlevoix.....	136	Total .. Males.. Fem...	45 2 43	110 53 57	51 34 17	26 20 6	9 7 2	7 5 2	6 4 2	11 6 5	3 2 1	2 1	..... ..... .....	1 1	1 ..... .....	..... ..... .....	..... ..... .....	
Cheboygan.....	130	Total .. Males.. Fem...	52 52	77 44 33	56 42 14	33 14 19	18 12 6	9 7 2	8 5 4	5	2							
Chippewa.....	165	Total .. Males.. Fem...	50 1 49	118 43 75	95 74 21	37 28 9	21 13 8	7 5 2	1 1	1								

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TABLE II.—Continued.—Persons married in Michigan, by ages, counties and sex, during the year 1899.

Counties.	Total marriages, 1899.	Sex.	Number of persons married, by periods of age, 1899.															
			Under 20 years.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 +	Unk.	
Iron	69	Total ..	10	64	35	15	9	4	1	...	...	...	...	...	...	...	...	
		Males..	...	26	24	12	6	1	...	...	...	...	...	...	...	...	...	
		Fem...	10	38	11	3	3	3	1	...	...	...	...	...	...	...	...	
Isabella	187	Total ..	78	140	78	32	21	10	7	5	2	...	1	...	...	...	...	
		Males..	7	72	55	20	14	7	6	4	1	...	1	...	...	...	...	
		Fem...	71	68	23	12	7	3	1	1	1	...	...	...	...	...	...	
Jackson	504	Total ..	142	380	225	92	55	33	23	17	12	7	6	7	...	...	...	
		Males..	12	192	142	56	37	17	15	8	11	4	4	6	...	...	...	
		Fem...	130	197	83	36	18	16	8	9	1	3	2	1	...	...	...	
Kalamazoo	456	Total ..	105	334	206	82	58	40	26	16	11	13	6	3	1	1	10	
		Males..	10	156	121	56	34	26	16	9	5	10	3	3	1	1	5	
		Fem...	95	178	85	26	24	14	10	7	6	3	3	...	...	...	5	
Kalkaska	79	Total ..	32	50	44	9	8	5	2	4	1	3	...	...	...	...	...	
		Males..	1	27	29	8	7	1	1	2	1	2	...	...	...	...	...	
		Fem...	31	23	15	1	1	4	1	2	...	1	...	...	...	...	...	
Kent	1,303	Total ..	284	1,066	639	280	132	72	47	22	39	12	13	8	2	...	...	
		Males..	26	482	385	185	86	43	30	15	29	6	8	7	1	...	...	
		Fem...	258	574	254	95	46	29	17	7	10	6	5	1	1	...	...	
Keweenaw	19	Total ..	5	13	10	7	2	...	1	...	...	...	...	...	...	...	...	
		Males..	1	5	5	5	2	...	1	...	...	...	...	...	...	...	...	
		Fem...	4	8	5	2	...	...	...	...	...	...	...	...	...	...	...	
Lake	50	Total ..	22	43	12	10	8	5	...	...	...	...	...	...	...	...	...	
		Males..	1	24	10	7	4	4	...	...	...	...	...	...	...	...	...	
		Fem...	21	19	2	3	4	1	...	...	...	...	...	...	...	...	...	
Lapeer	244	Total ..	89	185	104	33	23	13	12	6	10	5	7	...	1	...	...	
		Males..	5	91	75	24	16	8	6	4	5	5	4	...	1	...	...	
		Fem...	84	94	29	9	7	5	6	2	5	...	3	...	...	...	...	
Leelanau	77	Total ..	32	43	41	19	11	3	2	1	1	...	1	...	...	...	...	
		Males..	2	20	26	14	8	3	2	...	1	...	1	...	...	...	...	
		Fem...	30	23	15	5	3	...	1	...	...	...	...	...	...	...	...	
Lenawee	459	Total ..	118	382	192	80	50	26	24	8	17	8	4	7	2	...	...	
		Males..	12	178	125	53	33	14	14	7	7	4	4	7	1	...	...	
		Fem...	106	204	67	27	17	12	10	1	10	4	...	...	...	...	...	
Livingston	173	Total ..	35	137	83	36	18	11	8	4	5	7	2	...	...	...	...	
		Males..	...	68	46	23	11	5	7	2	3	6	2	...	...	...	...	
		Fem...	35	69	37	13	7	6	1	2	2	1	...	...	...	...	...	
Luce	22	Total ..	4	7	18	4	6	4	...	1	...	...	...	...	...	...	...	
		Males..	...	1	10	4	4	3	...	...	...	...	...	...	...	...	...	
		Fem...	4	6	8	...	2	1	...	1	...	...	...	...	...	...	...	
Mackinac	57	Total ..	18	42	23	15	6	5	3	2	...	...	...	...	...	...	...	
		Males..	1	16	21	7	4	3	3	2	...	...	...	...	...	...	...	
		Fem...	17	26	2	8	2	2	...	...	...	...	...	...	...	...	...	
Macomb	229	Total ..	51	186	108	50	24	12	11	2	5	5	4	...	...	...	...	
		Males..	2	82	71	32	15	7	9	1	3	3	4	...	...	...	...	
		Fem...	49	104	37	18	9	5	2	1	2	2	...	...	...	...	...	
Manistee	210	Total ..	66	158	94	37	26	10	10	6	8	4	...	1	...	...	...	
		Males..	2	72	65	25	20	8	7	4	3	3	...	1	...	...	...	
		Fem...	64	86	29	12	6	2	3	2	5	1	...	...	...	...	...	
Manistee	357	Total ..	82	291	199	85	26	17	2	6	2	3	...	...	...	...	1	
		Males..	3	110	136	71	17	11	1	4	1	3	...	...	...	...	1	
		Fem...	79	181	63	14	9	6	1	2	1	...	...	...	...	...	1	
Manistee	140	Total ..	50	113	65	24	10	5	7	4	1	...	1	...	...	...	...	
		Males..	4	57	44	15	9	3	5	2	...	...	1	...	...	...	...	
		Fem...	46	56	21	9	1	2	2	2	1	...	...	...	...	...	...	

TABLE II.—Continued.—Persons married in Michigan, by ages, counties and sex, during the year 1899.

Counties.	Total marriages, 1899.	Sex.	Number of persons married, by periods of age, 1899.																Unk.
			Under 20 years.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 to 84.			
Mecosta.....	175	Total..	73	123	68	30	13	13	6	14	4	4	1	1					
		Males..	3	69	44	23	9	7	3	10	3	2	1	1					
		Fem... 70	54	24	7	4	6	3	4	1	2								
Menominee....	214	Total..	70	160	110	39	26	8	9	3	2		1						
		Males..	3	72	74	30	23	4	4	2	1		1						
		Fem... 67	88	36	9	3	4	5	1	1									
Midland.....	118	Total..	42	101	51	15	10	2	4	5	1	4						1	
		Males..	1	52	33	12	10	1	2	4		2						1	
		Fem... 41	49	18	3		1	2	1	1	2								
Missaukee.....	80	Total..	34	61	32	14	10	3	4	2									
		Males..	1	33	25	7	6	2	4	2									
		Fem... 33	28	7	7	4	1												
Monroe.....	314	Total..	89	283	134	54	26	10	12	6	6	5	2					1	
		Males..	4	134	94	39	17	6	6	4	4	4	1					1	
		Fem... 85	149	40	15	9	4	6	2	2	1	1							
Montcalm.....	318	Total..	146	229	123	51	29	16	13	6	7	6	8	2					
		Males..	11	125	87	35	21	11	11	4	3	2	7	1					
		Fem... 135	104	36	16	8	5	2	2	4	4	1	1						
Montmorency..	15	Total..	7	9	3	2	3	2	1	2	1								
		Males..		6	3		2	1	1	2									
		Fem... 7	3		2	1	1			1									
Muskegon.....	308	Total..	67	281	137	54	33	13	12	8	5	5	1						
		Males..	5	121	93	41	18	9	8	6	2	4	1						
		Fem... 62	160	44	13	15	4	4	2	3	1								
Newaygo.....	158	Total..	67	108	59	23	12	13	9	10	4	7	3	1					
		Males..	2	60	42	16	11	7	5	5	2	4	3	1					
		Fem... 65	48	17	7	1	6	4	5	2	3								
Oakland.....	320	Total..	64	259	152	69	36	19	12	11	6	5	2	4				1	
		Males..	5	122	91	44	21	11	7	7	2	4	2	4					
		Fem... 59	137	61	25	15	8	5	4	4	1							1	
Oceana.....	161	Total..	56	122	65	36	16	10	4	2	3	4	3					1	
		Males..	4	59	43	28	10	5	4	1	2	3	2						
		Fem... 52	63	22	8	6	5			1	1	1	1					1	
Ogemaw.....	59	Total..	24	48	24	4	7	7	1	1	1							1	
		Males..	5	21	17	4	4	6		1	1								
		Fem... 19	27	7		3	1	1										1	
Ontonagon....	31	Total..	13	19	13	12	3		1	1									
		Males..	1	7	8	10	3		1	1									
		Fem... 12	12	5	2														
Osceola.....	160	Total..	55	129	67	28	20	3	5	5	1	4		2				1	
		Males..	2	64	43	21	16	2	2	4		3		2				1	
		Fem... 53	65	24	7	4	1	3	1	1	1								
Oscoda.....	5	Total..	2	4	3	1													
		Males..		1	3	1													
		Fem... 2	3																
Otsego.....	57	Total..	32	41	21	6	6	4	3	1									
		Males..	3	23	18	6	2	2	2	1									
		Fem... 29	18	3		4	2	1											
Ottawa.....	291	Total..	92	248	131	51	15	18	7	3	4	6	5	2					
		Males..	11	120	90	33	7	12	5	2	3	4	3	1					
		Fem... 81	128	41		8	6	2	1	1	2	2	1						
Presque Isle...	68	Total..	34							3		3							
		Males..								2		1							
		Fem... 1								1		2							

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TABLE II.—Concluded.—Persons married in Michigan, by ages, counties and sex, during the year 1899.

Counties.	Total marriages, 1899.	Sex.	Number of persons married, by periods of age, 1899.															
			Under 20 years.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 to 84.	Unk.	
Roscommon....	12	Total ..	2	13	4	2	3	...	...	...	...	...	...	...	...	...	...	
		Males..	5	3	1	1	3	...	...	...	...	...	...	...	...	...	...	
		Fem... 2	8	1	1	...	...	...	...	...	...	...	...	...	...	...	...	
Saginaw.....	698	Total ..	184	573	347	112	63	36	22	21	15	10	8	3	...	...	2	
		Males..	8	263	240	66	41	25	15	15	13	6	4	2	...	...	...	
		Fem... 176	310	107	46	22	11	7	6	2	4	4	1	...	...	...	2	
St. Clair	483	Total ..	96	370	258	86	52	20	27	17	18	8	4	5	4	1	...	
		Males..	2	175	144	61	37	11	18	10	11	3	3	3	4	1	...	
		Fem... 94	195	114	25	15	9	9	7	7	5	1	2	...	...	...	...	
St. Joseph	217	Total ..	56	143	120	56	21	13	12	3	8	1	1	...	...	...	...	
		Males..	4	66	72	35	17	7	6	3	5	1	1	...	...	...	...	
		Fem... 52	77	48	21	4	6	6	...	3	...	...	...	...	...	...	...	
Sanilac	287	Total ..	89	224	150	50	22	8	8	10	2	5	4	1	1	...	...	
		Males..	...	102	106	40	15	5	5	4	1	4	3	1	1	...	...	
		Fem... 89	122	44	10	7	3	3	6	1	1	1	...	...	...	...	...	
Schoolcraft....	71	Total ..	26	44	37	19	8	5	1	...	2	...	...	...	...	...	...	
		Males..	...	25	24	12	6	3	...	...	1	...	...	...	...	...	...	
		Fem... 26	19	13	7	2	2	1	...	1	...	...	...	...	...	...	...	
Shiawassee	369	Total ..	97	310	162	58	41	21	16	11	7	4	7	3	1	...	...	
		Males..	4	154	103	38	23	15	11	6	6	3	4	1	1	...	...	
		Fem... 93	156	59	20	18	6	5	5	1	1	3	2	...	...	...	...	
Tuscola	297	Total ..	107	238	113	49	30	14	20	8	9	3	3	...	...	...	...	
		Males..	5	127	80	29	18	9	15	5	5	1	3	...	...	...	...	
		Fem... 102	111	33	20	12	5	5	3	4	2	...	...	...	...	...	...	
Van Buren.....	322	Total ..	136	237	115	41	34	19	14	12	14	11	9	1	...	1	...	
		Males..	15	138	72	27	21	10	9	8	8	5	7	1	...	1	...	
		Fem... 121	99	43	14	13	9	5	4	6	6	2	...	...	...	...	...	
Washtenaw....	357	Total ..	50	264	215	87	45	22	13	10	12	3	...	2	...	1	...	
		Males..	1	99	125	63	27	13	9	6	10	2	...	2	...	...	...	
		Fem... 49	155	90	24	18	9	4	4	2	1	...	...	...	...	...	1	
Wayne	2,677	Total ..	507	2,210	1,463	551	265	133	94	45	45	25	11	1	2	...	2	
		Males..	17	942	911	388	182	84	62	31	29	19	9	1	2	...	...	
		Fem... 490	1,268	552	163	83	49	32	14	16	6	2	...	...	...	...	2	
Wexford.....	178	Total ..	68	138	72	34	15	11	8	4	3	3	...	...	...	...	...	
		Males..	3	76	47	27	9	7	3	2	1	3	...	...	...	...	...	
		Fem... 65	62	25	7	6	4	5	2	2	...	...	...	...	...	...	...	

TABLE III.—Marriages and persons married in Michigan, by nativity and counties, during the year 1899.

State and counties.	Total marriages, 1899.	Marriages, by nativity, 1899.								Persons married, by nativity, 1899.						
		Both native born.	Both foreign born.	Foreign male, native female.	Foreign female, native male.	Female unk.		Male unk.		Native born.		Foreign born.		Unk.		
						Male.		Female.		Males.	Females.	Males.	Females.	Males.	Females.	
						Native.	Foreign.	Native.	Foreign.							
																Both unk.
STATE.....	21,877	14,043	2,914	2,751	1,679	382	85	13	5	5	16,104	16,807	5,750	4,598	23	472
Alcona.....	38	20	7	4	7	.....	.....	.....	.....	.....	27	24	11	14	.....	.....
Alger.....	43	16	11	11	4	1	.....	.....	.....	.....	21	27	22	15	.....	1
Allegan.....	323	276	8	28	10	1	.....	.....	.....	.....	287	304	36	18	.....	.....
Alpena.....	174	51	31	54	27	6	4	.....	.....	1	84	105	89	58	1	11
Antrim.....	150	92	12	18	10	15	2	1	.....	.....	117	111	32	22	1	17
Arenac.....	73	36	6	22	5	3	1	.....	.....	.....	44	58	29	11	.....	4
Baraga.....	26	9	7	6	4	.....	.....	.....	.....	.....	13	15	13	11	.....	.....
Barry.....	227	197	1	10	8	11	.....	.....	.....	.....	216	207	11	9	.....	11
Bay.....	506	266	71	89	69	11	.....	.....	.....	.....	346	355	160	140	.....	11
Benzie.....	72	61	2	6	2	.....	1	.....	.....	.....	63	67	9	4	.....	1
Berrien.....	1,077	767	96	110	68	28	6	1	1	.....	863	878	212	165	2	34
Branch.....	296	267	1	12	8	8	.....	.....	.....	.....	283	279	13	9	.....	8
Calhoun.....	476	412	16	24	22	1	1	.....	.....	.....	435	436	41	38	.....	2
Cass.....	219	181	3	11	1	21	1	.....	.....	1	203	192	15	4	1	23
Charlevoix.....	136	101	8	11	8	5	3	.....	.....	.....	114	112	22	16	.....	8
Cheboygan.....	130	63	21	29	15	1	1	.....	.....	.....	79	92	51	36	.....	2
Chippewa.....	165	36	70	26	31	2	.....	.....	.....	.....	69	62	96	101	.....	2
Clare.....	69	45	4	11	8	.....	1	.....	.....	.....	53	56	16	12	.....	1
Clinton.....	234	213	.....	12	9	.....	.....	.....	.....	.....	222	225	12	9	.....	.....
Crawford.....	23	15	2	4	1	1	.....	.....	.....	.....	17	19	6	3	.....	1
Delta.....	215	86	64	38	23	2	2	.....	.....	.....	111	124	104	87	.....	4
Dickinson.....	161	28	96	26	9	1	1	.....	.....	.....	38	54	123	105	.....	2
Eaton.....	337	313	1	11	8	1	2	1	.....	.....	322	325	14	9	1	3
Emmet.....	132	99	10	12	11	.....	.....	.....	.....	.....	110	111	22	21	.....	.....
Genesee.....	404	327	12	34	27	3	1	.....	.....	.....	357	361	47	39	.....	4
Gladwin.....	47	30	3	7	5	1	1	.....	.....	.....	36	37	11	8	.....	2
Gogebie.....	148	33	92	14	9	.....	.....	.....	.....	.....	42	47	106	101	.....	.....
Grand Traverse.....	217	163	17	17	13	6	.....	.....	1	.....	182	180	34	31	1	6
Gratiot.....	312	244	2	24	16	24	1	1	.....	.....	284	269	27	18	1	25
Hillsdale.....	308	279	.....	6	4	16	1	.....	.....	2	299	285	7	4	2	19
Houghton.....	645	172	329	96	45	2	1	.....	.....	.....	219	268	426	374	.....	3
Huron.....	253	98	47	68	38	1	1	.....	.....	.....	137	166	116	85	.....	2
Ingham.....	401	335	14	27	19	5	1	.....	.....	.....	359	362	42	33	.....	6
Ionia.....	314	266	5	15	11	15	2	.....	.....	.....	292	281	22	16	.....	17
Iosco.....	71	36	10	13	7	3	2	.....	.....	.....	46	49	25	17	.....	5
Iron.....	69	14	42	8	5	.....	.....	.....	.....	.....	19	22	50	47	.....	.....
Isabella.....	187	136	8	22	13	5	3	.....	.....	.....	154	158	33	21	.....	8
Jackson.....	504	424	15	37	20	7	1	.....	.....	.....	451	461	53	35	.....	8
Kalamazoo.....	456	354	25	28	29	19	1	.....	.....	.....	402	382	54	54	.....	20
Kalkaska.....	79	62	4	4	8	1	.....	.....	.....	.....	71	66	8	12	.....	1
Kent.....	1,303	805	196	189	112	.....	.....	1	.....	.....	917	995	385	308	1	.....
Keweenaw.....	19	6	9	3	1	.....	.....	.....	.....	.....	7	9	12	10	.....	.....
Lake.....	50	32	3	8	4	2	1	.....	.....	.....	38	40	12	7	.....	3
Lapeer.....	244	177	12	41	14	.....	.....	.....	.....	.....	191	218	53	26	.....	.....
Leelanau.....	77	50	8	10	6	.....	2	.....	.....	1	56	60	20	14	1	3
Lenawee.....	459	381	7	29	.....	.....	.....	.....	.....	.....	421	410	38	32	.....	17
Livingston.....	173	155	3	10	.....	.....	.....	.....	.....	.....	160	165	13	7	.....	1
Luce.....	22	3	9								9	6	13	15		1
Mackinac.....	57	25									29	36	27	18	1	3
Macomb.....	229	171									187	183	42	35		1

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TABLE III.—Concluded.—Marriages and persons married in Michigan, by nativity and counties, during the year 1899.

Counties.	Total marriages, 1899.	Marriages, by nativity, 1899.									Persons married, by nativity, 1899.					
		Both native born.	Both foreign born.	Foreign male, native female.	Foreign female, native male.	Female unk.		Male unk.		Both unk.	Native born.		Foreign born.		Unk.	
						Male.	Fe- male.	Males.	Females.		Males.	Females.	Males.	Females.		
Manistee.....	210	92	46	49	22	1	.....	.....	.....	115	141	95	68	.....	1	
Marquette.....	357	90	164	75	28	.....	.....	.....	.....	118	165	239	192	.....	.....	
Mason.....	140	87	21	14	16	1	.....	1	.....	104	102	35	37	1	1	
Mecosta.....	175	132	12	22	9	.....	.....	.....	.....	141	154	34	21	.....	.....	
Menominee.....	214	91	52	51	16	2	2	.....	.....	109	142	105	68	.....	4	
Midland.....	118	78	8	20	10	.....	2	.....	.....	88	98	30	18	.....	2	
Missaukee.....	80	54	6	16	4	.....	.....	.....	.....	58	70	22	10	.....	.....	
Monroe.....	314	264	9	25	8	6	1	.....	1	278	289	35	18	1	7	
Montcalm.....	318	246	13	36	20	2	1	.....	.....	268	282	50	33	.....	3	
Montmorency.....	15	5	.....	7	2	1	.....	.....	.....	8	12	7	2	.....	1	
Muskegon.....	308	173	47	54	34	.....	.....	.....	.....	207	227	101	81	.....	.....	
Newaygo.....	158	119	11	18	9	1	.....	.....	.....	129	137	29	20	.....	1	
Oakland.....	320	216	15	38	28	18	4	1	.....	262	255	57	43	1	22	
Oceana.....	161	116	9	18	8	9	1	.....	.....	133	134	28	17	.....	10	
Ogemaw.....	59	26	14	9	5	3	2	.....	.....	34	35	25	19	.....	5	
Ontonagon.....	31	17	6	4	4	.....	.....	.....	.....	21	21	10	10	.....	.....	
Osceola.....	160	118	7	16	11	7	1	.....	.....	136	134	24	18	.....	8	
Oscoda.....	5	5	.....	.....	.....	.....	.....	.....	.....	5	5	.....	.....	.....	.....	
Otsego.....	57	26	8	16	5	2	.....	.....	.....	33	42	24	13	.....	2	
Ottawa.....	291	186	35	38	25	6	1	.....	.....	217	224	74	60	.....	7	
Presque Isle.....	68	36	8	15	6	3	.....	.....	.....	45	51	23	14	.....	3	
Roscommon.....	12	8	1	.....	3	.....	.....	.....	.....	11	8	1	4	.....	.....	
Saginaw.....	698	444	66	105	70	9	4	.....	.....	523	540	175	136	.....	13	
St. Clair.....	483	256	94	61	47	17	5	1	2	320	318	160	143	3	22	
St. Joseph.....	217	184	2	17	7	7	.....	.....	.....	198	201	19	9	.....	7	
Sanilac.....	287	123	48	75	40	1	.....	.....	.....	164	193	123	88	.....	1	
Schoolcraft.....	71	28	21	13	8	1	.....	.....	.....	37	41	34	29	.....	1	
Shiawassee.....	369	292	21	32	18	4	2	.....	.....	314	324	55	39	.....	6	
Tuscola.....	297	183	26	42	36	6	3	1	.....	225	226	71	62	1	9	
Van Buren.....	322	287	2	22	10	1	.....	.....	.....	298	309	24	12	.....	1	
Washtenaw.....	357	274	13	33	25	10	2	.....	.....	309	307	48	38	.....	12	
Wayne.....	2,677	1,254	655	451	305	7	4	1	.....	1,566	1,706	1,110	960	1	11	
Wexford.....	178	105	18	29	14	9	1	2	.....	128	136	48	32	2	10	

TABLE IV.—Marriages in Michigan, by males and females married, during the year 1899.

Ages of males married, 1899.	Ages of females married, 1899.																Total males.	Per cent of males at each age.
	Under 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 +	Unk.			
Under 20.....	321	52	3	1												1	378	1.7
20 to 24.....	3,555	4,167	405	28	18	4	1									3	8,181	37.4
25 to 29.....	1,496	3,355	1,598	201	54	9	5									3	6,721	30.7
30 to 34.....	337	1,034	867	439	104	27	9	6								2	2,825	12.9
35 to 39.....	105	360	401	259	208	64	20	6		1							1,424	6.5
40 to 44.....	24	98	133	168	145	94	36	15	4		1					1	719	3.3
45 to 49.....	13	36	75	74	114	119	82	20	13	2							548	2.5
50 to 54.....	5	23	19	44	61	59	66	50	11	5						1	344	1.6
55 to 59.....	2	11	16	23	28	40	51	43	43	17	4		2	1			281	1.3
60 to 64.....	1	3	7	8	10	18	29	35	43	37	8	1					200	0.9
65 to 69.....	1	1	4	2	4	14	10	25	33	24	15	2	2				137	0.6
70 to 74.....			1	2	2	4	9	4	17	12	16	8	1				76	0.3
75 to 79.....	1				2	4	2	4	1	4	3	4	1				26	0.1
80 and over.....	1							1	1	2	3	2	1				11	0.1
Unknown.....	1															5	6	
Total females..	5,863	9,140	3,529	1,249	750	456	320	209	166	104	50	17	7	1	16	21,877		
Per cent.....	26.8	41.8	16.1	5.7	3.4	2.1	1.5	1.0	0.8	0.5	0.2	0.1			0.1		100.0	

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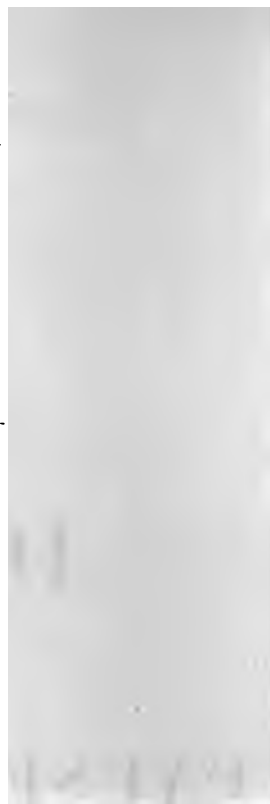
TABLE V.—Probate marriages in Michigan, by ages of males and females married, during the year 1899.

Ages of males married by judges of probate, 1899.		Ages of females married by judges of probate, 1899.													Total males.	Per cent of males at each age.			
		Ages under 20 years.							Under 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.			45 to 49.	60 to 64.	
		13.	14.	15.	16.	17.	18.	19.											
Ages under 20 years	16..	.....	.....	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1	2.5
	17..	.....	.....	.....	1	2	.....	1	.....	4	.....	.....	.....	.....	.....	.....	.....	4	10.0
	18..	.....	.....	.....	1	1	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	2	5.0
	19..	.....	.....	.....	2	.....	1	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	3	7.5
Under 20.....		.....	.....	.....	4	4	1	1	.....	10	.....	.....	.....	.....	.....	.....	.....	10	25.0
20 to 24.....		.....	.....	2	6	.....	.....	2	2	12	1	.....	.....	.....	.....	.....	.....	13	32.5
25 to 29.....		.....	1	1	.....	.....	.....	.....	.....	2	4	2	.....	.....	.....	.....	.....	8	20.0
30 to 34.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	1	2	.....	.....	.....	.....	.....	3	7.5
35 to 39.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	.....	2	5.0
40 to 44.....		.....	.....	.....	.....	1	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....	2	5.0
45 to 49.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
50 to 54.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	2.5
55 to 59.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
60 to 64.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
65 to 69.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	2.5
Total females.....		1	3	10	5	1	3	2	.....	25	7	7	.....	.....	.....	.....	1	40	.....
Per cent.....		2.5	7.5	25.0	12.5	2.5	7.5	5.0	.....	62.5	17.5	17.5	.....	.....	.....	.....	2.5	.....	100.0

NOTE.—Figures in bold face indicate marriages at illegal ages, under the general laws of the State, for one or both parties. The 40 marriages performed by Judges of Probate in Michigan during the year 1899 were distributed by months as follows: January, 3; February, 6; March, 3; April, 3; May, 3; June, 3; July, 7; August, 2; September, 3; October, 4; November, 1; December, 2. All were white. By nativity, there were 29 couples both native born; 4 couples both foreign born; 4 couples with foreign male and native female; 3 couples with native male and foreign female; 1 couple male unknown, female native. They are not included in the preceding tables of marriages.



TABLES
RELATING TO
DIVORCES
AND
CAUSES OF DIVORCE
IN
MICHIGAN
DURING THE
YEAR 1899.



PRIMARY TABLES RELATING TO DIVORCES AND CAUSES OF DIVORCE IN MICHIGAN DURING THE YEAR 1899.

TABLE I.—Divorces in Michigan, by counties and sex of complainant, during the year 1899, showing place of marriage, number of children in family, and duration of marriage before divorce.

TABLE II.—Causes of divorce in Michigan, by sex of complainant, during the year 1899, showing place of marriage, number of children in family, and duration of marriage before divorce.

NOTE.—*Secondary tables*, containing divorce rates, etc., will be found on preceding pages of this Report, together with the descriptive text.

TABLE I.—Divorces in Michigan, by counties and sex of complainant, during the year before

State and counties.	Sex of complainants.	Complainants in divorces granted, 1899.	Place of marriage.						Number of chil-							
			Michigan	Ohio, Indiana, Wisconsin.	Other states.	Canada.	Other foreign countries.	Unk.	0.	1.	2.	3.	4.	5.	6.	
STATE	Total ..	2,218	1,782	105	136	146	22	27	1,074	531	302	132	76	45	28	
	Males..	675	509	41	62	44	12	7	372	121	78	43	28	15	10	
	Fem... 1,543	1,273	64	74	102	10	20	702	410	224	89	48	30	18		
Alcona	Total ..	1	1						1							
	Males..															
	Fem... 1	1							1							
Alger	Total ..	5	5						3	2						
	Males..	2	2						1	1						
	Fem... 3	3							2	1						
Allegan	Total ..	40	35	2	2	1			19	8	3	6	2		1	
	Males..	11	10	1					5	3		1	1			
	Fem... 29	25	1	2	1				14	5	3	5	1		1	
Alpena	Total ..	8	5			3			5			1	1			
	Males..	4	2			2			3			1				
	Fem... 4	3			1				2			1				
Antrim	Total ..	22	19	1	2				10	7	4				1	
	Males..	6	4		2				2	3	1					
	Fem... 16	15	1						8	4	3				1	
Arenac	Total ..	7	5			1	1		4		1	1				
	Males..	4	3			1			3		1					
	Fem... 3	2					1		1		1					
Baraga	Total ..	1	1						1							
	Males..															
	Fem... 1	1							1							
Barry	Total ..	30	27		3				16	3	6	1	4			
	Males..	11	11						5	1	2	1	2			
	Fem... 19	16		3					11	2	4		2			
Bay	Total ..	34	28	1	1	3		1	16	8	6	2			2	
	Males..	16	13	1	1			1	9	3	2	1			1	
	Fem... 18	15			3				7	5	4	1			1	
Benzie	Total ..	9	8	1					4	5						
	Males..	2	2						2							
	Fem... 7	6	1						2	5						
Berrien	Total ..	54	41	7	4	1		1	28	8	8	1	4	3		
	Males..	20	15	3	2				11	3	2		3	1		
	Fem... 34	26	4	2	1			1	17	5	6	1	1	2		
Branch	Total ..	31	26	3	2				16	6	5	2		1	1	
	Males..	10	7	2	1				5	2	2	1				
	Fem... 21	19	1	1					11	4	3	1		1	1	
Calhoun	Total ..	50	43	1	5	1			20	17	5	4	2	1	1	
	Males..	13	11		1	1			8	1	1		2		1	
	Fem... 37	32	1	4					12	16	4	4		1		
Cass	Total ..	16	13	3					9	3	4					
	Males..	2	1						2							
	Fem... 14	12	2						7	3	4					
Charlevoix	Total ..	3	3						1	1	1					
	Males..	1	1								1					
	Fem... 2	2							1	1						
Cheboygan	Total ..	16	12	1		2	1		4	2	4	4	1	1		
	Males..	7	6	1					3		1	2	1			
	Fem... 9	6			2	1			1	2	3	2		1		
Chippewa	Total ..	7	5			2			2	2	2	1				
	Males..	3	2			1			1	1	1					
	Fem... 4	3			1				1	1	1	1				

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Duration of marriage before divorce.

[illegible]

Number of children in family and duration of marriage before divorce.

Duration of marriage before divorce.																		
14.	Unk.	Under 1 year.	1.	2.	3.	4.	Under 5 years.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	Unk.
				1	1		2	1	3	2				1				
				1	1		2	1	3	1				1				
	1		3	3		3	9	9	5	3	1	2	1					2
	1		1	2	3	2	7	5	4	3	1	2	1					1
										1								
										1								
			1	1		2	4	4	2		1							
			1	1		1	3	2			1							
					2	1	3	1	1									
					1		1		1									
					1	1	2	1										
		1	1	3	2	2	9	9	5	1	1	2						
		1	1	3	1	1	7	5	4	1	1	2						
				1		1	2	9			2							
				1		1	2	5										
											2							
		1	5	6	4	5	21	10	8	11	7	2	1	1				
			2	1	2	1	6	2	2	2			1	1				
		1	3	5	2	4	15	8	6	9	7	2						
						1	1	1	2		1							
						1	1		1		1							
				1	1		2	3	1									
				1			1	1										
				1			1	2	1									
	1	1		1	2	2	6	14	11	5		2	1	1				
						1	1	6	2	1		1						
	1	1		1	2	1	5	8	9	4		1	1	1				
		1	3	7	6	7	24	17	6	4	10	4	2					2
				3	1	3	7	8	3		5							1
		1	3	4	5	4	17	9	3	4	5	4	2					1
			4	1	2	2	9	7	6	5	3	3	1	1				
			1	1	1		3	2	2	2	2	1						
			3		1	2	6	5	4	3	1	2	1	1				
		1	1	1	2	1	6	11	5	1	3			1				
						1	1	2	4		3			1				
		1	1	1	1		4	7	4	1								
				1		1	2	2	1	2								
				1			1	1	2									
1			2	6	3	2	13	12	8	3	2	2	2	1				
1			1	2	2		5	4	3	1	1		1	1				
			1	4	1	2	8	8	5	2	1	2	1					
		1	1	3	4	2	11	14	4	8	3						1	
				1	1		3	8	1	2	1						1	
		1	1	2	3	1	8	6	3	6	2							
								2	3	3								
									2	3								

Counties.	Sex of complainants.	Complainants in divorces granted, 1899.	Place of marriage.						Number of children.							
			Michigan.	Ohio, Indiana, Wisconsin.	Other states.	Canada.	Other foreign countries.	Unk.	0.	1.	2.	3.	4.	5.	6.	
Iron	Total ..															
	Males..															
	Fem...															
Isabella	Total ..	13	13						7	3	2			1		
	Males..	3	3						2		1					
	Fem...	10	10						5	3	1			1		
Jackson	Total ..	86	75	9	2				49	25	7	4	1			
	Males..	21	17	2	2				13	5	1	2				
	Fem...	65	58	7					36	20	6	2	1			
Kalamazoo	Total ..	60	52	2	4			2	38	6	7	4	3	2		
	Males..	13	11		2				11		1	1				
	Fem...	47	41	2	2			2	27	6	6	3	3	2		
Kalkaska	Total ..	5	4		1						1	2	1	1		
	Males..	2	1		1							1	1			
	Fem...	3	3								1	1		1		
Kent	Total ..	220	186	8	13	9	2	2	117	45	33	12	5	1	5	
	Males..	60	59	3	4	2		1	37	7	8	3	2		3	
	Fem...	160	136	5	9	7	2	1	80	38	25	9	3	1	2	
Keweenaw	Total ..															
	Males..															
	Fem...															
Lake	Total ..	2	2							1			1			
	Males..															
	Fem...	2	2							1			1			
Lapeer	Total ..	18	14		1	2		1	5	7	3		2			
	Males..	5	3			1		1	1	1	2		1			
	Fem...	13	11		1	1			4	6	1		1			
Leelanau	Total ..	2	2						1							
	Males..															
	Fem...	2	2						1							
Lenawee	Total ..	49	44	2	1			2	27	11	7	3	1			
	Males..	16	13	1	1			1	11	2	1	1	1			
	Fem...	33	31	1				1	16	9	6	2				
Livingston	Total ..	23	17		1			5	10	6	3	2	2			
	Males..	4	4						3				1			
	Fem...	19	13		1			5	7	6	3	2	1			
Luce	Total ..	1	1										1			
	Males..															
	Fem...	1	1										1			
Mackinac	Total ..	2	2							1	1					
	Males..															
	Fem...	2	2							1	1					
Macomb	Total ..	22	16	1		4	1		5	6	8				2	
	Males..	8	7				1		1	2	4				1	
	Fem...	14	9	1		4			4	4	4					
Manistee	Total ..	16	15	1					8	4	2	2				
	Males..	4	3	1					3	1						
	Fem...	12	12						5	3	2	2				
Marquette	Total ..	14	13													
	Males..	4	3													
	Fem...	10	10													
Mason	Total ..	5	5													
	Males..	2	2													
	Fem...	3	3													

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Duration of marriage before divorce.

[illegible]

TABLE I.—Continued.—Divorces in Michigan, by counties and sex of com-

Counties.	Sex of complainants.	Complainants in divorces granted, 1899.	Place of marriage.						Number of children.						
			Michigan.	Ohio, Indiana, Wisconsin.	Other states.	Canada.	Other foreign countries.	Unk.	0.	1.	2.	3.	4.	5.	6.
Mecosta.....	Total..	24	22	2					11	4	5	2	1	1	
	Males..	6	6						5		1				
	Fem...	18	16	2					6	4	4	2	1	1	
Menominee....	Total..	10	4	4				2	4	2	1	2			
	Males..	3	1	2					1			1			
	Fem...	7	3	2				2	3	2	1	1			
Midland.....	Total..	8	7		1				1	5	1		1		
	Males..	4	3		1				1	2			1		
	Fem...	4	4							3	1				
Missaukee....	Total..	6	6						3	1	1	1			
	Males..	2	2						1		1				
	Fem...	4	4						2	1		1			
Monroe.....	Total..	25	20	4	1				14	4	2		1	1	1
	Males..	9	6	2	1				5	2	1			1	
	Fem...	16	14	2					9	2	1		1		1
Montcalm.....	Total..	30	27	1	2				16	9	4				
	Males..	7	6	1					6	1					
	Fem...	23	21		2				10	8	4				
Montmorency..	Total..														
	Males..														
	Fem...														
Muskegon	Total..	34	24	2	7	1			14	8	4	4	1	1	2
	Males..	11	7	1	3				4	2		3		1	1
	Fem...	23	17	1	4	1			10	6	4	1	1		1
Newaygo.....	Total..	16	14	1	1				7	1	4	1		2	
	Males..	9	8		1				4		2	1		1	
	Fem...	7	6	1					3	1	2			1	
Oakland.....	Total..	43	34		2	5	1	1	19	14	6		2		
	Males..	9	5			2	1	1	6	2	1				
	Fem...	34	29		2	3			13	12	5		2		
Oceana.....	Total..	21	19		2				10	5	5	1			
	Males..	10	8		2				6	2	2				
	Fem...	11	11						4	3	3	1			
Ogemaw	Total..														
	Males..														
	Fem...														
Ontonagon....	Total..	1	1							1					
	Males..	1	1							1					
	Fem...														
Osceola.....	Total..	9	9						3	4	2				
	Males..	2	2							1	1				
	Fem...	7	7						3	3	1				
Oscoda.....	Total..	1	1											1	
	Males..	1	1											1	
	Fem...														
Otsego	Total..	10	9	1					7	2		1			
	Males..	6	5	1					4	1		1			
	Fem...	4	4						3	1					
Ottawa	Total..	12	10	2					6	3	2			1	
	Males..	5	3	2					4	1					
	Fem...	7	7						2	2	2			1	
Presque Isle..	Total..	6	6						4	2					
	Males..	3	3						3						
	Fem...	3	3						1	2					

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dren in family.

[illegible]

VITAL STATISTICS OF MICHIGAN, 1899

TABLE I.—Concluded.—Divorces in Michigan, by counties and sex of com-

Counties.	Sex of complainants.	Complainants in divorces granted, 1899.	Place of marriage.						Number of chil-						
			Michigan.	Ohio, Indiana, Wisconsin.	Other states.	Canada.	Other foreign countries.	Unk.	0.	1.	2.	3.	4.	5.	6.
Roscommon...	Total ..	1	1						1						
	Males..	1	1						1						
	Fem...														
Saginaw.....	Total ..	69	57	2	4	5	1		33	15	9	3	3	2	4
	Males..	19	16		2	1			9	2	4	2	1		1
	Fem...	50	41	2	2	4	1		24	13	5	1	2	2	3
St. Clair.....	Total ..	34	27	1	2	4			15	6	7	2	2		1
	Males..	4	4						3				1		
	Fem...	30	23	1	2	4			12	6	7	2	1		1
St. Joseph....	Total ..	21	19	1	1				10	4	4	1	2		
	Males..	5	5						2	2	1				
	Fem...	16	14	1	1				8	2	3	1	2		
Sanilac.....	Total ..	14	11			2		1	2	6	4	1		1	
	Males..	4	3			1			1	2		1			
	Fem...	10	8			1		1	1	4	4			1	
Schoolcraft...	Total ..														
	Males..														
	Fem...														
Shiawassee....	Total ..	44	40		3			1	19	11	6	5	2		1
	Males..	9	7		2				4	2	1		1		1
	Fem...	35	33		1			1	15	9	5	5	1		
Tuscola.....	Total ..	25	22			2		1	14	2	4	1	1		
	Males..	12	11			1			7	1	2				
	Fem...	13	11			1		1	7	1	2	1	1		
Van Buren....	Total ..	48	41	5	2				23	11	3	3	1	2	2
	Males..	11	10		1				6	3	1		1		
	Fem...	37	31	5	1				17	8	2	3		2	2
Washtenaw....	Total ..	50	42	1	5	2			22	13	9	2	1	2	
	Males..	15	11		4				6	2	4			2	
	Fem...	35	31	1	1	2			16	11	5	2	1		
Wayne.....	Total ..	323	177	19	32	86	8	1	159	96	34	16	12	5	1
	Males..	101	44	9	14	30	4		56	23	8	6	5	3	
	Fem...	222	133	10	18	56	4	1	103	73	26	10	7	2	1
Wexford.....	Total ..	21	19	1	1				14	3	4				
	Males..	8	7		1				6		2				
	Fem...	13	12	1					8	3	2				

DIVORCES

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plainant, number of children in family and duration of marriage before divorce.

Children in family.						Duration of marriage before divorce.																
7.	8.	9.	10.	14.	Unk.	Under 1 year.	1.	2.	3.	4.	Under 5 years.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	Unk.
									1		1											
									1		1											
						2	3	7	2	4	18	21	14	4	4	4	3					1
							1	3		2	6	6	2	1	2	1	1					
						2	2	4	2	2	12	15	12	3	2	3	2					1
	1					1		2		2	5	11	7	7	2	1	1					
	1					1					1	1		1	1							
								2		2	4	10	7	6	1	1	1					
						1		5	2	1	9	7	3	1	1							
											1	2	1	1								
						1		4	2	1	8	5	2		1							
							2	1		1	4	2	4	3	1							
								1			1		1	2								
							2			1	3	2	3	1	1							
							3	8	2	1	14	9	8	4	5	1	2					1
								1			1	3	2	2			1					
							3	7	2	1	13	6	6	2	5	1	1					1
						3	1	3	3	1	9	7	3	4		1	1					
						2	1	1	1		4	4		3		1						
						1		2	2	1	5	3	3	1			1					
						3	1	3	3	3	13	10	7	9	5	2	2					
								2		2	4	2	2	2	1							
						3	1	3	1	3	9	8	5	7	4	2	2					
						1	1	4	3	6	15	12	7	6	4	2	3		1			
						1		1		2	3	5	1	1	2	2	1					
							1	3	3	4	12	7	6	5	2		2		1			
						5	13	21	15	20	74	102	75	35	18	8	7	1				3
							5	3	4	9	21	37	19	13	6	2	2					1
							5	8	18	11	53	65	56	22	12	6	5	1				2
							2	2		2	6	6	6	2								1
										1	1	4	2	1								
							2	2		1	5	2	4	1								1

TABLE II.—Causes of divorce in Michigan, by sex of complainant, during the year 1899, before

Causes alleged in petitions for divorces granted in 1899.	Sex of complainant.	Complainants in divorces granted, 1899.	Place of marriage.							Number of children							
			Michigan.	Ohio, Indiana, Wisconsin.	Other states.	Canada.	Other foreign countries.	Unk.	0.	1.	2.	3.	4.	5.	6.		
ALL CAUSES....	Total ..	2,218	1,782	105	136	146	22	27	1074	531	302	132	76	45	28		
	Males..	875	599	41	62	44	12	7	372	121	78	43	28	15	10		
	Fem... 1,543	1,273	64	74	102	10	20	702	410	224	89	48	30	18	18		
Adultery.....	Total ..	65	49	6	5	4	1	32	17	5	7	3	1	1	1		
	Males..	50	38	6	3	2	1	27	14	3	3	2	1	1	1		
	Fem... 15	11	1	2	2	1	5	3	2	4	1	1	1	1	1		
Adultery and cruelty.....	Total ..	14	10	2	2	1	9	1	2	2	2	2	2	2	2		
	Males..	9	7	1	1	1	7	1	1	1	1	1	1	1	1		
	Fem... 5	3	1	1	1	1	2	1	1	1	1	1	1	1	1		
Adultery, cruelty, drunkenness and non-support.....	Total ..	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
	Males..	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
	Fem... 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Adultery and desertion.....	Total ..	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
	Males..	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
	Fem... 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Adultery and non-support.....	Total ..	2	1	1	1	1	2	2	2	2	2	2	2	2	2		
	Males..	2	1	1	1	1	2	2	2	2	2	2	2	2	2		
	Fem... 2	1	1	1	1	1	2	2	2	2	2	2	2	2	2		
Bigamy.....	Total ..	3	3	3	3	3	3	3	3	3	3	3	3	3	3		
	Males..	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
	Fem... 2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
Cruelty.....	Total ..	768	619	34	45	50	8	12	363	158	123	52	31	19	15		
	Males..	252	189	14	22	23	2	2	118	51	39	20	12	6	6		
	Fem... 516	430	20	23	27	6	10	245	107	84	32	19	13	9	9		
Cruelty, deception and fraud.....	Total ..	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
	Males..	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
	Fem... 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Cruelty and desertion.....	Total ..	45	32	4	6	2	1	26	8	4	2	3	1	1	1		
	Males..	27	18	4	3	1	1	16	4	3	2	1	1	1	1		
	Fem... 18	14	1	3	1	1	10	4	1	1	2	2	2	2	2		
Cruelty, desertion and drunkenness.....	Total ..	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
	Males..	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
	Fem... 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Cruelty, desertion and non-support.....	Total ..	11	10	1	1	1	5	2	1	1	1	1	1	1	1		
	Males..	11	10	1	1	1	5	2	1	1	1	1	1	1	1		
	Fem... 11	10	1	1	1	1	5	2	1	1	1	1	1	1	1		
Cruelty, desertion, drunkenness and non-support.....	Total ..	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
	Males..	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
	Fem... 2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
Cruelty and drunkenness.....	Total ..	30	25	1	1	2	1	17	3	5	2	2	2	2	2		
	Males..	5	2	1	1	1	1	3	3	1	1	1	1	1	1		
	Fem... 25	23	1	1	1	1	14	3	4	2	1	1	1	1	1		
Cruelty, drunkenness and non-support.....	Total ..	10	9	1	1	1	4	2	3	1	1	1	1	1	1		
	Males..	10	9	1	1	1	4	2	3	1	1	1	1	1	1		
	Fem... 10	9	1	1	1	1	4	2	3	1	1	1	1	1	1		
Cruelty and neglect.....	Total ..	5	4	1	1	1	1	1	1	3	1	1	1	1	1		
	Males..	3	2	1	1	1	1	1	1	1	1	1	1	1	1		
	Fem... 2	2	1	1	1	1	1	1	2	2	2	2	2	2	2		
Cruelty and non-support.....	Total ..	212	171	8	6	20	2	5	94	65	30	10	4	6	6		
	Males..	6	3	1	1	1	1	1	2	1	1	1	1	1	1		
	Fem... 206	168	7	6	20	1	4	92	64	30	9	3	5	5	5		

in family.

Duration of marriage before divorce.

[illegible]

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in family.

[illegible]



TABLES
RELATING TO
BIRTHS
IN
MICHIGAN
AS ENUMERATED BY
SUPERVISORS AND ASSESSORS
FOR THE
YEAR 1899.

PRIMARY TABLES RELATING TO BIRTHS IN MICHIGAN
ACCORDING TO THE ENUMERATION BY SUPER-
VISORS AND ASSESSORS FOR THE YEAR 1899.

I.—Births in Michigan, by months, counties and sex, as enumerated by supervisors for the year 1899. (Stillbirths included.)

II.—Births in Michigan by nativity of parents, counties and sex, as enumerated by supervisors and assessors for the year 1899. (Stillbirths included.)

III.—Stillbirths, twins and illegitimate births in Michigan by counties as enumerated by supervisors and assessors for the year 1899. (Stillbirths included.)

IV.—Stillbirths, twins and illegitimate births in Michigan, by months and sex, as enumerated by supervisors and assessors for the year 1899. (Stillbirths included.)

TABLE V.—Stillbirths, twins and illegitimate births in Michigan, by nativity of parents, as enumerated by supervisors and assessors for the year 1899. (Stillbirths included.)

NOTE.—*Secondary tables*, containing birth rates and comparisons with previous years, may be found on preceding pages of this Report, together with the descriptive text. It may be noted that no comparisons with other States or countries are given for the reason that the returns of births, obtained by means of enumeration after the close of the year by supervisors and assessors, are grossly inaccurate. Perhaps one-third of all the births that actually occur in the State escape enumeration. The returns are valuable for certain internal comparisons, as pointed out in the text on this subject, but they should be used with great caution for all purposes, and especially for the comparative study of birth rates. The tables relating to births are placed last because of their unreliable character and also because the tardiness of the returns under the old law (last amended in 1889) causes them to be received at the Department of State long after the deaths, marriages and divorces have been compiled.

TABLE I.—Births in Michigan, by months, counties and sex, as enumerated by supervisors and assessors for the year 1899. (Stillbirths included.)

State and counties.	Sex.	Year 1899.	Months, 1899.														
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.		
STATE	Total ..	41,818	3,099	3,134	3,681	3,652	3,494	3,109	3,633	3,785	3,758	3,454	3,262	3,636	31		
	Males ..	21,583	1,616	1,624	1,931	1,832	1,783	1,677	1,887	1,902	1,927	1,788	1,731	1,867	18		
	Fem. ..	20,165	1,471	1,493	1,740	1,810	1,700	1,514	1,738	1,879	1,821	1,655	1,520	1,759	9		
	Unk ..	130	12	17	10	10	11	8	8	4	10	11	11	14	4		
Alcona	Total ..	56	4	.....	2	5	5	6	7	4	9	5	6	3	.....		
	Males ..	23	1	.....	1	1	2	3	4	3	2	2	4	.....	.....		
	Fem. ..	33	3	.....	1	4	3	3	3	1	7	3	2	3	.....		
Alger	Total ..	129	13	10	15	11	6	12	10	12	7	10	8	15	.....		
	Males ..	85	6	6	12	6	4	8	6	7	6	8	7	9	.....		
	Fem. ..	43	7	3	3	5	2	4	4	5	1	2	1	6	.....		
	Unk ..	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Allegan	Total ..	627	52	60	49	54	55	58	59	60	54	42	46	38	.....		
	Males ..	330	25	36	28	31	33	28	31	32	30	20	28	16	.....		
	Fem. ..	297	27	24	21	23	22	30	28	28	24	22	18	22	.....		
Alpena	Total ..	451	33	40	43	49	34	31	34	31	34	34	40	48	.....		
	Males ..	234	14	25	25	26	17	18	17	15	18	16	22	21	.....		
	Fem. ..	217	19	15	18	23	17	13	17	16	16	18	18	27	.....		
Antrim	Total ..	207	15	13	22	16	17	17	23	16	17	19	14	16	2		
	Males ..	104	6	9	13	12	10	6	14	7	7	7	7	6	.....		
	Fem. ..	103	9	4	9	4	7	11	9	9	10	12	7	10	2		
Arenac	Total ..	152	14	13	11	13	15	11	14	15	12	14	10	10	.....		
	Males ..	74	9	5	5	7	9	4	8	10	6	3	5	3	.....		
	Fem. ..	78	5	8	6	6	6	7	6	5	6	11	5	7	.....		
Baraga	Total ..	68	1	6	3	9	7	8	9	5	5	7	4	4	.....		
	Males ..	30	.....	3	3	1	5	5	4	1	2	2	2	.....	.....		
	Fem. ..	38	1	3	.....	8	2	3	5	4	3	5	2	2	.....		
Barry	Total ..	253	21	15	21	22	21	21	21	25	28	23	12	23	.....		
	Males ..	133	11	5	12	9	13	12	16	13	14	10	5	13	.....		
	Fem. ..	120	10	10	9	13	8	9	5	12	14	13	7	10	.....		
Bay	Total ..	1,376	110	91	126	134	103	106	92	134	146	98	100	136	.....		
	Males ..	721	60	58	54	67	54	62	51	64	75	46	58	72	.....		
	Fem. ..	655	50	33	72	67	49	44	41	70	71	52	42	64	.....		
Benzie	Total ..	172	12	12	15	18	20	15	12	12	14	14	14	14	.....		
	Males ..	90	8	7	9	7	8	6	5	7	4	9	11	9	.....		
	Fem. ..	82	4	5	6	11	12	9	7	5	10	5	3	5	.....		
Berrien	Total ..	482	35	40	43	32	40	40	48	39	52	31	42	40	.....		
	Males ..	262	19	22	22	18	18	21	28	18	29	17	25	25	.....		
	Fem. ..	220	16	18	21	14	22	19	20	21	23	14	17	15	.....		
Branch	Total ..	325	14	23	22	27	30	28	33	30	34	31	26	27	.....		
	Males ..	176	9	7	12	17	13	12	20	19	20	18	16	13	.....		
	Fem. ..	149	5	16	10	10	17	16	13	11	14	13	10	14	.....		
Calhoun	Total ..	529	39	37	41	44	47	31	49	49	45	50	36	61	.....		
	Males ..	269	21	24	15	24	23	20	21	23	26	25	17	30	.....		
	Fem. ..	260	18	13	26	20	24	11	28	26	19	25	19	31	.....		
Cass	Total ..	222	10	13	18	24	18	20	18	21	18	13	27	22	.....		
	Males ..	116	2	9	12	10	15	7	9	12	8	5	16	11	.....		
	Fem. ..	106	8	4	6	14	3	13	9	9	10	8	11	11	.....		
Charlevoix	Total ..	187	22	16	14	20	25	15	13	17	9	13	5	18	.....		
	Males ..	110	16	5	10	7	15	10	7	10	8	8	4	10	.....		
	Fem. ..	77	6	11	4	13	10	5	6	7	1	5	1	8	.....		
Cheboygan	Total ..	278	18	24	24	18	23	15	32	33	23	24	22	22	.....		
	Males ..	153	12	16	11	9	10	8	11	21	14	15	13	13	.....		
	Fem. ..	125	6	8	13	9	13	7	21	12	9	9	9	9	.....		
Chippewa	Total ..	398	24	26	42	35	34	41	28	31	35	37	30	35	.....		
	Males ..	195	16	17	16	19	15	20	12	10	21	17	16	16	.....		
	Fem. ..	203	8	9	26	16	19	21	16	21	14	20	14	19	.....		

Counties.	Sex.	Year 1899.	Months, 1899.														
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.		
Clare.....	(Total .	106	4	5	11	10	15	10	11	10	5	14	4	7	....		
	Males..	42		4	4	5	5	3	5	2	2	7	2	3	....		
	Fem..	64	4	1	7	5	10	7	6	8	3	7	2	4	....		
Clinton.....	(Total .	410	31	26	36	29	42	38	32	39	39	41	29	28	....		
	Males..	225	17	13	23	14	28	21	18	18	20	23	15	15	....		
	Fem..	184	14	13	13	15	14	17	14	21	19	18	13	13	....		
	Unk..	1											1		....		
Crawford.....	(Total .	67	2	6	6	8	4	8	6	11	1	2	6	7	....		
	Males..	34		3	4	3	1	6	3	7		1	4	2	....		
	Fem..	33	2	3	2	5	3	2	3	4	1	1	2	5	....		
Delta.....	(Total .	496	38	41	41	49	35	32	48	47	42	42	30	45	....		
	Males..	233	21	18	19	19	11	19	25	24	21	20	17	19	....		
	Fem..	254	17	23	22	30	24	13	23	23	21	21	12	25	....		
	Unk..	3										1	1	1	....		
Dickinson.....	(Total .	543	43	48	60	49	51	35	40	35	43	46	30	52	....		
	Males..	287	21	28	31	23	31	13	27	19	27	32	16	27	....		
	Fem..	256	22	20	29	26	20	22	22	16	16	24	14	25	....		
Eaton.....	(Total .	379	22	34	40	27	35	30	33	36	33	32	26	31	....		
	Males..	178	8	15	24	7	15	16	17	14	17	12	14	19	....		
	Fem..	201	14	19	16	20	20	14	16	22	16	20	12	12	....		
Emmet.....	(Total .	200	11	9	16	19	15	18	20	19	26	15	13	19	....		
	Males..	104	6	3	6	10	10	7	13	11	15	5	6	12	....		
	Fem..	96	5	6	10	9	5	11	7	8	11	10	7	7	....		
Genesee.....	(Total .	496	28	39	43	36	42	44	42	59	45	33	50	35	....		
	Males..	247	15	20	25	19	20	20	15	27	21	17	24	24	....		
	Fem..	249	13	19	18	17	22	24	27	32	24	16	26	11	....		
Gladwin.....	(Total .	99	10	6	5	11	9	8	9	7	6	7	9	12	....		
	Males..	52	6	2	2	6	5	5	4	3	2	6	7	7	....		
	Fem..	47	4	4	3	5	4	3	5	3	3	5	3	5	....		
Gogebic.....	(Total .	482	32	35	33	30	45	47	44	47	45	36	41	47	....		
	Males..	254	17	22	21	10	18	29	24	22	17	25	26	23			
	Fem..	228	15	13	12	20	27	18	20	25	28	11	15	24	</		

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TABLE I.—Continued.—Births in Michigan, by months, counties and sex, 1899.

Counties.	Sex.	Year 1899.	Months, 1899.													Unk.
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.		
Iron.....	Total..	105	8	6	9	8	8	12	7	10	8	4	15	10	....	
	Males..	52	4	4	6	2	5	6	3	5	3	2	8	4	....	
	Fem..	53	4	2	3	6	3	6	4	5	5	2	7	6	....	
Isabella.....	Total..	365	19	21	21	34	33	28	31	39	40	37	31	31	....	
	Males..	189	9	9	12	16	18	17	13	19	21	22	15	18	....	
	Fem..	176	10	12	9	18	15	11	18	20	19	15	16	13	....	
Jackson.....	Total..	668	56	43	52	58	53	46	58	39	75	63	49	76	....	
	Males..	339	30	16	24	24	29	23	32	22	46	33	21	39	....	
	Fem..	325	26	26	28	33	24	23	26	17	29	29	28	36	....	
Kalamazoo.....	Total..	473	34	46	40	34	39	32	51	38	41	39	41	33	5	
	Males..	240	18	25	22	18	20	20	25	19	21	18	22	10	2	
	Fem..	231	16	21	18	15	19	12	26	19	20	21	19	23	2	
Kalkaska.....	Total..	100	4	8	6	11	8	10	15	12	12	7	1	6	....	
	Males..	49	4	4	4	8	2	6	6	5	8	3	....	3	....	
	Fem..	51	4	4	2	3	6	4	9	7	4	4	1	3	....	
Kent.....	Total..	2,123	124	141	192	184	160	175	165	213	194	211	183	179	2	
	Males..	1,071	72	85	96	94	80	83	99	105	102	100	85	89	1	
	Fem..	1,048	52	76	96	90	79	90	66	108	92	111	98	89	1	
Keweenaw.....	Total..	81	5	6	11	6	5	5	9	8	3	10	8	5	....	
	Males..	43	2	3	4	4	3	5	3	6	3	5	3	2	....	
	Fem..	38	3	3	7	2	2	....	6	2	....	5	5	3	....	
Lake.....	Total..	77	3	1	7	4	3	9	11	11	13	6	4	5	....	
	Males..	38	1	1	3	2	....	4	7	8	3	3	3	3	....	
	Fem..	39	2	....	4	2	3	5	4	3	10	3	1	2	....	
Lapeer.....	Total..	326	25	24	25	22	24	36	32	32	27	30	21	28	....	
	Males..	158	11	11	10	11	10	15	19	10	13	22	9	17	....	
	Fem..	168	14	13	15	11	14	21	13	22	14	8	12	11	....	
Leelanau.....	Total..	187	11	4	21	16	19	16	24	20	23	13	8	12	....	
	Males..	98	9	2	9	9	8	9	16	10	11	7	2	6	....	
	Fem..	89	2	2	12	7	11	7	8	10	12	6	6	6	....	
Lenawee.....	Total..	522	33	55	26	39	41	48	48	46	57	41	51	36	1	
	Males..	277	23	24	17	23	23	27	24	20	30	22	26	17	1	
	Fem..	245	10	31	9	16	18	21	24	26	27	19	25	19	....	
Livingston.....	Total..	186	5	10	17	18	21	19	17	13	19	16	16	14	1	
	Males..	97	2	8	10	11	10	7	8	2	10	9	9	10	1	
	Fem..	86	2	2	7	7	11	10	9	11	9	7	7	4	....	
Luce.....	Total..	74	6	2	8	8	7	5	11	6	3	7	2	9	....	
	Males..	45	4	....	8	6	5	3	6	1	2	2	2	6	....	
	Fem..	29	2	2	....	2	2	2	5	5	1	5	....	3	....	
Mackinac.....	Total..	111	10	5	10	10	12	10	12	9	7	6	8	11	1	
	Males..	47	6	2	1	6	5	6	6	1	5	3	2	4	....	
	Fem..	63	4	3	9	4	7	4	6	8	2	3	6	7	....	
Macomb.....	Total..	471	40	45	36	36	37	40	45	46	36	38	32	40	....	
	Males..	225	20	23	16	19	16	18	26	23	21	16	8	19	....	
	Fem..	244	20	21	20	17	21	22	19	23	15	22	24	20	....	
Manistee.....	Total..	576	44	38	54	49	49	46	57	44	54	43	51	47	....	
	Males..	299	18	20	30	23	25	27	29	21	30	25	30	21	....	
	Fem..	277	26	18	24	26	24	19	28	23	24	18	21	26	....	
Manistee.....	Total..	1,200	94	91	100	101	113	87	135	89	109	87	90	103	1	
	Males..	651	49	53	53	53	61	47	67	44	66	44	55	59	....	
	Fem..	549	45	38	47	48	52	40	68	45	43	43	35	44	1	

TABLE II.—Births in Michigan by nativity of parents, counties and sex, as enumerated by supervisors and assessors for the year 1899. (Stillbirths included.)

State and counties.	Sex.	Children born in 1899.	Nativity of parents of children born in 1899.								Both unk.
			Both native born.	Both foreign born.	Foreign father and native mother.	Foreign mother and native father.	Mother unknown.		Father unknown.		
							Father—		Mother—		
							Native.	Foreign.	Native.	Foreign.	
STATE.....	Total .. Males.. Fem... Unk...	41,818 21,583 20,105 130	18,508 9,644 8,837 27	13,955 7,198 6,741 16	5,024 2,540 2,476 8	3,116 1,612 1,504	119 62 57	77 44 33	212 100 107 5	76 38 34 4	731 345 316 70
Alcona.....	Total .. Males.. Fem...	56 23 33	10 5 5	25 7 18	12 4 8	8 6 2					1 1 1
Alger.....	Total .. Males.. Fem... Unk...	129 85 43 1	41 29 12	38 24 14	30 21 9	6 2 4	1 1	3 3	1 1		9 4 4 1
Allegan.....	Total .. Males.. Fem...	627 339 297	472 251 221	67 31 36	56 33 23	29 15 14	1 1		1 1	1 1	
Alpena.....	Total .. Males.. Fem...	451 234 217	89 44 45	239 125 114	81 44 37	41 20 21		1 1			
Antrim.....	Total .. Males.. Fem...	207 104 103	105 52 53	35 21 14	32 17 15	19 5 14	8 2 6	7 7			1 1
Arenac.....	Total .. Males.. Fem...	152 74 78	52 26 26	47 23 24	33 16 17	13 5 8		2 1 1	1 1		4 2 2
Baraga.....	Total .. Males.. Fem...	68 30 38	30 15 15	21 9 12	8 3 5	4 2 2	1 1 1	2 1 1	1 1		1 1 1
Barry.....	Total .. Males.. Fem...	253 133 120	221 111 110	7 6 1	11 6 5	11 8 3	2 1 1		1 1		
Bay.....	Total .. Males.. Fem...	1,376 721 655	444 240 204	585 303 282	228 112 116	110 61 49	1 1	1 1	3 1 2	3 3 1	1 1
Benzie.....	Total .. Males.. Fem...	172 90 82	89 51 38	34 15 19	29 14 15	15 7 8	2 1 1		3 2 1		
Berrien.....	Total .. Males.. Fem...	482 262 220	328 180 148	90 45 45	33 19 14	25 14 11		2 2	4 4		
Branch.....	Total .. Males.. Fem...	325 176 149	279 148 131	15 7 8	21 13 8	9 8 1	1 1				
Calhoun.....	Total .. Males.. Fem...	529 269 260	423 223 200	43 18 25	21 7 14	29 13 16	6 2 4	3 2 1	4 4		
Cass.....	Total .. Males.. Fem...	222 116 106	194 98 96	6 5 1	11 7 4	7 3 4	2 2		2 1 1		
Charlevoix.....	Total .. Males.. Fem...	187 110 77	101 57 44	30 20 10	33 20 13	22 12 10			1 1		

TABLE II.—Continued.—Births by counties, parent nativity and sex, 1899.

Counties.	Sex.	Children born in 1899.	Nativity of parents of children born in 1899.								Both unk.
			Both native born.	Both foreign born.	Foreign father and native mother.	Foreign mother and native father.	Mother unknown.		Father unknown.		
							Father—		Mother—		
							Native.	Foreign.	Native.	Foreign.	
Cheboygan.....	Total..	278	100	90	53	27	1	1	4		2
	Males..	153	50	57	28	16	1		1		
	Fem... 125	50	33	25	11			1	3		2
Chippewa.....	Total..	398	59	256	39	32	1		2	7	2
	Males..	195	29	127	17	14	1		1	5	1
	Fem... 203	30	129	22	18			1	2		1
Clare.....	Total..	106	53	15	21	14			1	1	1
	Males..	42	16	7	7	9			1	1	1
	Fem... 64	37	8	14	5						
Clinton.....	Total..	410	328	12	29	20	3		12		6
	Males..	225	178	7	16	11	2		6		5
	Fem... 184	149	5	13	9	1		6			1
	Unk... 1	1									
Crawford.....	Total..	67	31	21	11	4					
	Males..	34	15	12	5	2					
	Fem... 33	16	9	6	2						
Delta.....	Total..	490	107	244	83	26	3	4	2	3	18
	Males..	233	52	117	33	16		1	1	1	12
	Fem... 254	53	126	50	10	3	3	1	2	6	
	Unk... 3	2	1								
Dickinson.....	Total..	543	48	426	51	18					
	Males..	287	26	231	22	8					
	Fem... 256	22	195	29	10						
Eaton.....	Total..	379	338	9	14	16	1				1
	Males..	178	160	4	7	7					
	Fem... 201	178	5	7	9	1					1
Emmet.....	Total..	200	136	28	13	17	1		2	1	2
	Males..	104	71	11	6	12	1		2		1
	Fem... 96	65	17	7	5				1	1	
Genesee.....	Total..	496	373	28	34	51	4		3		3
	Males..	247	190	10	15	26	3				
	Fem... 249	183	18	19	25	1		3			
Gladwin.....	Total..	99	36	27	24	11				1	
	Males..	52	25	9	12	6					
	Fem... 47	11	18	12	5					1	
Gogebic.....	Total..	482	40	380	42	14		5	1		
	Males..	254	24	198	20	8		4			
	Fem... 228	16	182	22	6			1	1		
Gd. Traverse...	Total..	289	168	40	31	30	4	1			15
	Males..	156	92	19	13	20	2				10
	Fem... 131	76	20	18	10	2	1				4
	Unk... 2		1								1
Gratiot.....	Total..	426	351	18	28	24	1		2	1	1
	Males..	226	182	12	17	14					1
	Fem... 200	169	6	11	10	1		2	1		
Houghton.....	Total..	284	261	3	11	6			2		1
	Males..	147	134	2	5	4			1		1
	Fem... 137	127	1	6	2				1		
	Unk... 1										
Total..		2,242	370	1,489	292	89		1	1		
Males..		1,187	207	780	160	39		1			
Fem... 1,055		163	709	132	50				1		

TABLE II.—Continued.—Births by counties, parent nativity and sex, 1899.

Counties.	Sex.	Children born in 1899.	Nativity of parents of children born in 1899.									
			Both native born.	Both foreign born.	Foreign father and native mother.	Foreign mother and native father.	Mother unknown.		Father unknown.		Both unk.	
							Father—		Mother—			
							Native.	Foreign.	Native.	Foreign.		
Luce	Total ..	74	13	40	12	7				2		
	Males..	45	9	23	6	6				1		
	Fem...	29	4	17	6	1				1		
Mackinac	Total ..	111	47	39	16	5			2		2	
	Males..	47	20	17	9						1	
	Fem...	63	27	22	7	5			2		1	
	Unk...	1									1	
Macomb	Total ..	471	306	64	52	40	3		4	1	1	
	Males..	225	148	28	26	18	1	3		1		
	Fem...	244	157	35	26	22	2	1	1			
	Unk...	2	1	1								
Manistee.....	Total ..	576	142	341	57	30			5	1		
	Males..	299	73	172	35	17			1	1		
	Fem...	277	69	169	22	13			4			
Marquette.....	Total ..	1,200	181	748	183	71		1	8	6	2	
	Males..	651	100	402	101	42			3	3		
	Fem...	549	81	346	82	29		1	5	3	2	
Mason.....	Total ..	423	179	140	61	40		2	1			
	Males..	198	93	56	27	20		1	1			
	Fem...	223	86	82	34	20		1				
	Unk...	2		2								
Mecosta.....	Total ..	321	187	58	47	25			2		2	
	Males..	170	92	37	22	15			2		2	
	Fem...	148	93	21	24	10						
	Unk...	3	2	1	1							
Menominee....	Total ..	601	145	340	87	28					1	
	Males..	303	73	176	41	12					1	
	Fem...	298	72	164	46	16						
Midland.....	Total ..	272	144	56	42	26		1	3			
	Males..	139	73	31	20	13			2			
	Fem...	133	71	25	22	13		1	1			
Missaukee.....	Total ..	209	88	56	38	22	1		4			
	Males..	103	46	28	17	9	1		2			
	Fem...	106	42	28	20	13			2			
	Unk...	1			1							
Monroe.....	Total ..	527	438	31	29	20	6	1	1		1	
	Males..	282	234	16	18	10	2	1			1	
	Fem...	245	204	15	11	10	4		1			
Montcalm.....	Total ..	439	283	83	35	33			4	1		
	Males..	216	146	34	13	18			4	1		
	Fem...	221	135	49	22	15						
	Unk...	2	2									
Montmorency..	Total ..	56	15	25	10	6						
	Males..	33	12	12	5	4						
	Fem...	23	3	13	5	2						
Muskegon.....	Total ..	625	233	250	78	49	8		1	2	4	
	Males..	346	136	140	34	27	5		1	2	1	
	Fem...	275	96	109	44	22	3				1	
	Unk...	4	1	1							2	
Newaygo.....	Total ..	260	172	30	39	17			1		1	
	Males..	135	87	17	21	8			1		1	
	Fem...	125	85	13	18	9						
Oakland.....	Total ..	465	326	49	49	36	2		2		1	
	Males..	260	187	27	19	24	2				1	
	Fem...	205	139	22	30	12			2			

TABLE II.—Continued.—Births by counties, parent nativity and sex, 1899.

Counties.	Sex.	Children born in 1899.	Nativity of parents of children born in 1899.								Both unk.
			Both native born.	Both foreign born.	Foreign father and native mother.	Foreign mother and native father.	Mother unknown.		Father unknown.		
							Father—		Mother—		
							Native.	Foreign.	Native.	Foreign.	
Oceana.....	Total ..	268	180	40	26	19			1	1	1
	Males..	138	95	24	10	8					1
	Fem...	129	84	16	16	11			1	1	
	Unk...	1									
Ogemaw.....	Total ..	84	34	21	19	7		2			1
	Males..	44	18	11	9	5		1			
	Fem...	40	16	10	10	2		1			1
	Unk...										
Ontonagon ..	Total ..	46	9	14	9	1	2	1			4
	Males..	16	4	5	5	1	1				
	Fem...	24	5	9	4		1	1			4
	Unk...										
Osceola.....	Total ..	318	189	62	45	20			2		
	Males..	167	101	36	19	9			2		
	Fem...	151	88	26	26	11					
	Unk...										
Oscoda.....	Total ..	20	12	1	5	1			1		
	Males..	13	9		3				1		
	Fem...	7	3	1	2	1					
	Unk...										
Otsego.....	Total ..	109	49	34	16	10					
	Males..	56	26	18	7	5					
	Fem...	53	23	16	9	5					
	Unk...										
Ottawa.....	Total ..	721	328	206	105	78		1	1	1	1
	Males..	342	156	89	52	43			1	1	
	Fem...	378	172	116	53	35		1			1
	Unk...	1		1							
Presque Isle...	Total ..	158	37	67	42	12					
	Males..	82	21	33	20	8					
	Fem...	75	15	34	22	4					
	Unk...	1	1								
Roscommon....	Total ..	33	19	4	5	1	3		1		
	Males..	15	10		2	1	2				
	Fem...	18	9	4	3		1		1		
	Unk...										
Saginaw.....	Total ..	1,823	840	451	259	172	5	4	34	14	44
	Males..	953	463	227	127	97	3	1	13	7	15
	Fem...	868	376	224	131	75	2	3	21	7	29
	Unk...	2	1		1						
St. Clair.....	Total ..	872	437	175	159	95		1	3	1	1
	Males..	467	238	94	86	45			2	1	1
	Fem...	404	199	81	72	50		1	1		
	Unk...	1			1						
St. Joseph....	Total ..	256	205	12	18	16	2		2	1	
	Males..	116	96	5	6	9					
	Fem...	140	109	7	12	7	2		2	1	
	Unk...										
Sanilac.....	Total ..	680	188	237	153	94			3	3	2
	Males..	345	81	127	83	48			3	2	1
	Fem...	333	107	108	70	46				1	1
	Unk...	2		2							
Schoolcraft....	Total ..	198	39	110	32	16			1		
	Males..	94	20	50	12	12					
	Fem...	104	19	60	20	4			1		
	Unk...										
Shiawassee....	Total ..	400	314	37	23	20	1		3		2
	Males..	213	162	23	16	11					1
	Fem...	187	152	14	7	9	1		3		1
	Unk...										
Tuscola.....	Total ..	492	255	82	82	71			2		
	Males..	240	124	40	39	36			1		
	Fem...	252	131	42	43	35			1		
	Unk...										

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TABLE II.—Concluded.—Births by counties, parent nativity and sex, 1899.

Counties.	Sex.	Children born in 1899.	Nativity of parents of children born in 1899.								
			Both native born.	Both foreign born.	Foreign father and native mother.	Foreign mother and native father.	Mother unknown.		Father unknown.		Both unk.
							Father—		Mother—		
							Native.	Foreign.	Native.	Foreign.	
Van Buren....	Total..	342	305	13	12	7	2	.....	2	.....	1
	Males..	161	148	6	3	3	.....	.....	1	.....	.....
	Fem... 178	155	6	9	4	.....	2	.....	1	.....	1
	Unk... 3	2	1	.....	.....	.....	.....	.....	.....	.....	.....
Washtenaw....	Total..	515	334	82	45	46	5	1	2	.....	.....
	Males..	245	158	41	21	21	4	.....	.....	.....	.....
	Fem... 288	175	41	24	25	1	1	.....	1	.....	.....
	Unk... 2	1	.....	.....	.....	.....	.....	.....	1	.....	.....
Wayne.....	Total..	8,105	2,190	3,778	861	684	19	14	30	17	512
	Males..	4,197	1,151	1,988	451	347	13	9	15	5	236
	Fem... 3,820	1,037	1,806	407	337	6	5	.....	12	8	212
	Unk... 78	2	4	3	.....	.....	.....	.....	3	4	62
Wexford.....	Total..	300	157	80	34	23	.....	.....	5	.....	1
	Males..	152	78	42	19	11	.....	.....	1	.....	1
	Fem... 148	79	38	15	12	.....	.....	.....	4	.....	.....

TABLE III.—Stillbirths, twins and illegitimate births in Michigan, by counties, as enumerated by supervisors and assessors for the year 1899. (Stillbirths included.)

State and counties.	Number of stillbirths in 1899.	Number of twins born in 1899.	Number of illegitimate children born in 1899.	Counties.	Number of stillbirths in 1899.	Number of twins born in 1899.	Number of illegitimate children born in 1899.
STATE.....	600	822	386	Keweenaw.....	7		
Alcona.....		2		Lake.....	2	2	1
Alger.....	2	2		Lapeer.....	3	16	2
Allegan.....	10	14	2	Leelanau.....		8	1
Alpena.....	9	18	1	Lenawee.....	6	14	3
Antrim.....	5	8		Livingston.....	9	8	
Arenac.....		2	1	Luce.....	2	4	2
Baraga.....		2		Mackinac.....	4		3
Barry.....	3	2	1	Macomb.....	1	10	3
Bay.....	16	32	3	Manistee.....	7	12	7
Benzie.....		2	1	Marquette.....	33	20	16
Berrien.....	6	8	1	Mason.....	6	6	2
Branch.....	11	2		Mecosta.....	5	4	2
Calhoun.....	7	24	1	Menominee.....	33	4	
Cass.....		6		Midland.....	2	6	3
Charlevoix.....	5	2	1	Missaukee.....	6	4	
Cheboygan.....	5	2	3	Monroe.....	2	16	
Chippewa.....		6	9	Montcalm.....	9	4	2
Clare.....			2	Montmorency.....			
Clinton.....	8	4	5	Muskegon.....	8	14	1
Crawford.....		2		Newaygo.....		6	1
Delta.....	8	12	2	Oakland.....	3	10	
Dickinson.....	3	14		Oceana.....	3	8	1
Eaton.....	7	4	1	Ogemaw.....		2	1
Emmet.....		2	5	Ontonagon.....	1		
Genesee.....	8	2	5	Osceola.....	4	6	1
Gladwin.....		10	2	Oscoda.....			1
Gogebic.....	2	8	1	Otsego.....	1		
Grand Traverse.....	2	6		Ottawa.....	7	14	2
Gratiot.....	3	10	1	Presque Isle.....	3	2	
Hillsdale.....		14		Roscommon.....	2	2	1
Houghton.....	21	50	2	Saginaw.....	39	28	21
Huron.....	9	14	9	St. Clair.....	8	18	6
Ingham.....	11	12		St. Joseph.....	3	8	1
Ionia.....	10	2	2	Sanilac.....	18	24	7
Iosco.....	2	2		Schoolcraft.....		8	1
Iron.....		2	1	Shiawassee.....	4	12	2
Isabella.....	1	4	1	Tuscola.....	5	2	1
Jackson.....	5	16	2	Van Buren.....	2	4	1
Kalamazoo.....	3	8	2	Washtenaw.....	4	4	2
Kalkaska.....		4	1	Wayne.....	130	128	179
Kent.....	33	44	39	Wexford.....	3	6	

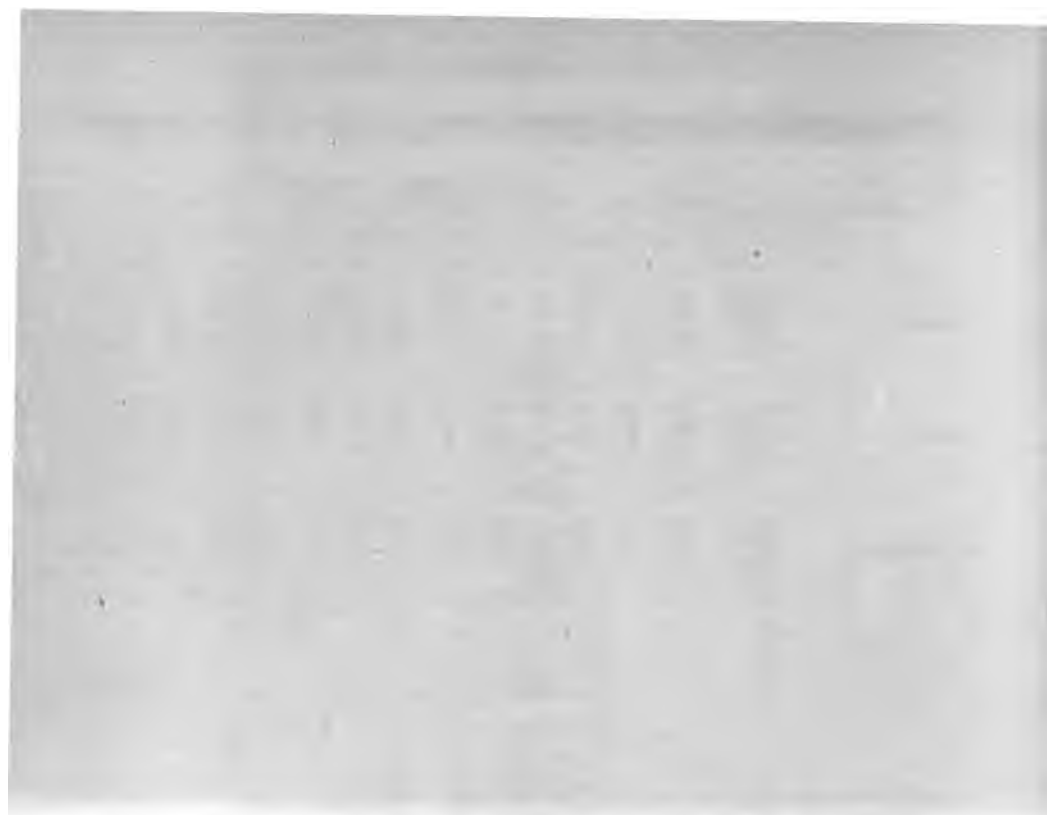
TRIPLETS.—There was one case of triplets reported for 1899 from Wayne county, born in January, two males, 1 female; foreign father, native mother.

TABLE IV.—Stillbirths, twins and illegitimate births in Michigan, by months and sex, as enumerated by supervisors and assessors for the year 1899. (Stillbirths included.)

Condition.	Sex.	Year 1899.	Months of birth, 1899.												
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sep.	Oct.	Nov.	Dec.	Unk.
Stillbirths.....	{Totals..	600	55	50	49	48	56	46	46	43	41	56	45	63	2
	{Males..	281	29	23	23	21	20	18	23	21	21	28	21	32	1
	{Fem...	214	15	16	17	18	28	21	17	18	14	16	13	21	.....
	{Unk...	105	11	11	9	9	8	7	6	4	6	12	11	10	1
Twins.....	{Totals..	822	66	48	102	78	76	70	50	82	52	78	46	72	2
	{Males..	400	30	22	59	40	29	26	27	49	22	37	18	39	2
	{Fem...	418	36	26	43	38	47	42	23	33	30	39	28	33	.....
	{Unk...	4	.....	.....	.....	.....	.....	2	.....	.....	.....	2	.....	.....	.....
Illegitimates.....	{Totals..	386	31	26	25	27	31	42	52	33	39	23	35	19	3
	{Males..	189	8	12	14	13	17	28	23	18	20	10	18	6	2
	{Fem...	194	23	14	10	14	14	14	29	14	19	13	17	12	1
	{Unk...	3	.....	.....	1	.....	.....	.....	.....	1	.....	.....	.....	1	.....

TABLE V.—Stillbirths, twins and illegitimate births in Michigan, by nativity of parents, as enumerated by supervisors and assessors for the year 1899. (Stillbirths included.)

Nativity of parents.	Number of stillborn children, 1899.				Number of twins, 1899.				Number of illegitimate children, 1899.			
	Total.	Males.	Fem.	Unk.	Total.	Males.	Fem.	Unk.	Total.	Males.	Fem.	Unk.
All nativities	600	281	214	105	822	400	418	4	386	189	194	3
Both native born.....	244	130	98	16	342	157	181	4	41	19	22	.....
Both foreign born.....	184	99	71	14	300	151	149	.....	9	5	4	.....
Foreign father and native mother.....	64	32	27	5	98	45	53	.....	7	5	2	.....
Foreign mother and native father.....	25	14	11	.....	62	34	28	.....	5	2	3	.....
Unknown mother, father native.....	2	1	1	.....	.....	.....	.....	.....	2	1	1	.....
Unknown mother, father foreign.....	1	1	.....	.....	.....	.....	.....	.....	1	.....	1	.....
Unknown father, mother native.....	6	.....	3	3	6	4	2	.....	64	27	34	3
Unknown father, mother foreign.....	7	2	1	4	.....	.....	.....	.....	53	20	13	.....
Both unknown.....	67	2	2	63	14	9	5	.....	224	110	114	.....
One or both native.....	341	177	140	24	508	240	264	4	119	54	62	3
One or both foreign.....	281	148	110	23	460	230	230		56	32	23	



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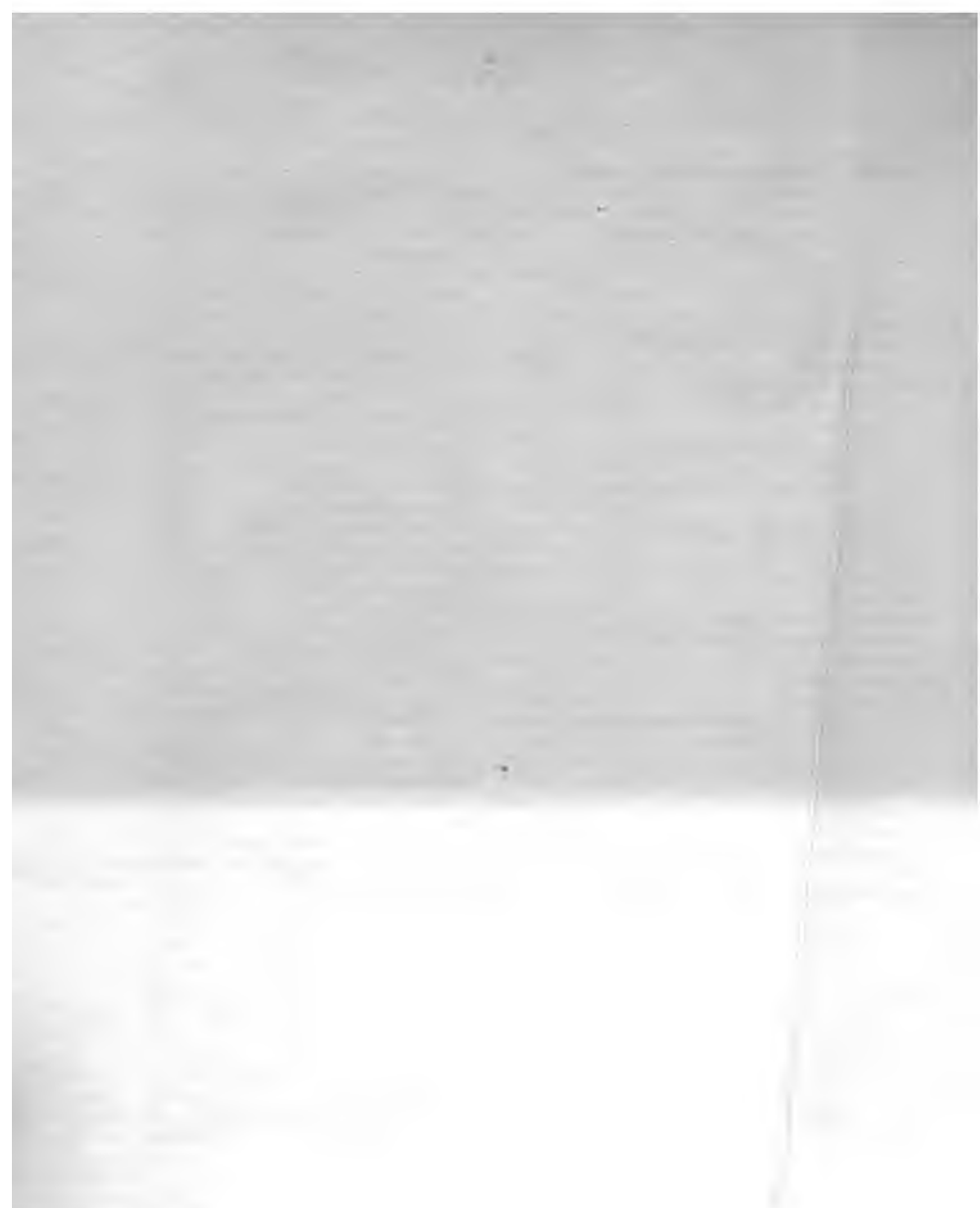
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THIRTY-FOURTH ANNUAL REPORT
OF THE
★
SECRETARY OF STATE
ON THE
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OF
BIRTHS AND DEATHS
MARRIAGES AND DIVORCES
IN
MICHIGAN
FOR THE YEAR 1900

FRED M. WARNER

SECRETARY OF STATE

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REGISTRATION REPORTS OF MICHIGAN (VITAL STATISTICS.)

Annual Registration Report was for the year April 5, 1867, to April 5, 1868, and the fractional year April 5, 1868, to December 31, 1868. Reports, from the Third (1869) to the Thirty-fourth (1900), are for

of Reports, which includes statistics of deaths under the old and new law of 1867, according to which they were enumerated by superintendents in the same way that births are enumerated at the present time,

in twenty-one volumes, extending from 1867 to 1897, inclusive.

A new series of Reports, which includes reliable statistics of deaths as returned by local registrars under the law of 1897 requiring immediate registration and the use of burial permits, begins with the year 1898. It contains the first accurate statistics of mortality in Michigan.

THE MICHIGAN MONTHLY BULLETIN OF VITAL STATISTICS.

EDITED BY CRESSY L. WILBUR, M. D.

Vol. I.—September, 1897, to December, 1898.

Vol. II.—January to December, 1899.

Vol. III.—January to December, 1900.

Vol. IV.—January to December, 1901.

Vol V.—January to December, 1902.

Vol. VI.—Current Volume, 1903.

THE BULLETIN OF VITAL STATISTICS is mailed each month to all registrars in the State, and to such others as may request it. Registrars will confer a favor by ascertaining whether their local health officers, physicians, undertakers, and others interested have seen the publication, and, if they desire it, by sending in their names on a special slip with the monthly report. It aims to assist in every way possible in the thorough execution of the law and to make practical use of the results obtained for the benefit of the people of the State.

REGISTRAR'S CALENDAR AND MANUAL OF INSTRUCTIONS.

LETTER OF TRANSMITTAL.

STATE DEPARTMENT,
Lansing, Michigan, February 24, 1903.

TO HIS EXCELLENCY, AARON T. BLISS, *Governor:*

SIR—I hereby transmit the Thirty-fourth Annual Registration Report of Michigan, containing statistics of births and deaths, marriages and divorces in this State during the year 1900, as required by law.

Respectfully,

FRED M. WARNER,
Secretary of State.



INTRODUCTORY REMARKS.

The present or Thirty-fourth Annual Registration Report of Michigan is the third of the new series of reports based upon the improved method of registration that has been in force in this State since August 29, 1897. The data obtained under the old law for the enumeration of deaths, that was in force in Michigan for over thirty years, were grossly inaccurate in many very important respects. Hence no extended comparisons of mortality rates as given in this Report for 1900 can be made with those for the earlier and more imperfect years of registration. We are now accumulating a supply of more reliable statistics, and shall soon have a series of years showing mortality statistics under the new law that will be of greatly increased value to sanitarians and all users of vital statistics.

The law for the registration of deaths has continued to show itself admirably adapted to the practical requirements of such an act, and no changes should be made except, possibly, some of a minor character for the purpose of securing somewhat greater facility in its enforcement. Great care should be taken that no hasty or ill-considered tampering with the present form of the law should operate to interfere with its demonstrated efficiency.

It was intended to present in the present Report a comparison of the accuracy of registration based on the deaths added from reports of enumerators to the United States Census Office for the Census year 1899-1900. The labor of making a thorough comparison of such returns, which involved making a complete index of deaths returned for the two years 1899 and 1900, was very considerable and has not yet been entirely concluded. As soon as possible the results will be presented.

NEW LAW NEEDED FOR ACCURATE REGISTRATION OF BIRTHS.

What has been said in regard to the very satisfactory condition of registration in Michigan in regard to the subject of deaths is by no

means applicable to the almost equally important matter of registering births. While the statistics of births are not of such direct sanitary value as statistics showing the incidence of deaths from various causes, the accurate registration of all births is, nevertheless, of very great importance for legal purposes. Moreover, if an effort is made to collect statistics of any kind, it is worth while to collect accurate statistics that can be used for all purposes without a large discount for "incomplete returns."

The essentials of a law for the accurate registration of births are quite similar to those for the accurate registration of deaths, but vary somewhat owing to the fact that there is no check upon the efficiency of registration that can be as sharply applied as the requirement of a burial or removal permit to deaths. By the latter the law can compel all deaths to be registered by making it a penal offense to inter or remove a body without obtaining a registrar's permit showing that the death has been properly registered. For a birth, if it happens to escape immediate record, there is no ordinary plan by which the omitted record will be obtained. It is therefore necessary that some special inducement shall be given to the persons depended upon to file records of births, that the machinery of the law shall be framed to punish cases of violation, and even then that some additional check shall be applied, if possible, to detect omissions in the returns.

The first requirement for births, as for deaths, is a certificate or blank form containing the essential facts, to be made out as soon as possible after the event occurs. The responsibility for making and filing this certificate should be definitely fixed upon one person, usually the attending physician or midwife, devolving upon other persons in definite order when no physician or midwife attends the case. It is usual, and probably necessary, to provide a small fee to be paid the informant for complete and prompt reports. The local registrar should be charged with the enforcement of the law in his jurisdiction, and should be responsible if he does not promptly report cases of neglect coming to his attention. The manner of making returns to the central registration office (Department of State in Michigan) should be practically the same as that now in operation for deaths, so that no additional official machinery would be required.

Probably a system so devised would give much better results than the old plan of enumerating births by supervisors, which has been in effect without change, except a slight detrimental one so far as complete

returns are concerned which was made in 1869, since the passage of the first registration law in Michigan in 1867. Instead of some fifty or sixty per cent of the total number of births as at present obtained under this organically defective law, we might get, perhaps, eighty or ninety per cent,—an improvement, but by no means approximate accuracy. It would be worth while to modify the law for even this amount of improvement, but it would seem possible, by retaining some of the features of the old law in connection with the requirement of a birth certificate, to reach a higher standard of accuracy. Let the local registrar supply a list of births registered by him for the preceding calendar year to the supervisor at the time that the latter is making his assessment. At present he is required to enumerate births at the same time, but, for various reasons, his report is very incomplete. Having a list of children born, he could readily note any births not registered, and should ascertain who was responsible for the neglect, whether attending physician or midwife. A peremptory request to such delinquent persons to at once file the missing certificates, with prompt enforcement of the law when necessary, would at once check up the accuracy of the returns and in a short time would discourage violations of the law. The supervisor or assessor should receive a reasonable fee for all births added to the registration record, and it should be made the duty of the registration authorities to prosecute all continued violations of the law.

COOPERATION OF CONGRESS WITH THE STATES.

So important has the accurate registration of vital statistics, especially those of births and deaths, become to the country as a whole, that efforts made in this direction by the United States Census Office have received the especial approval of Congress and the enactment of proper registration laws has been urged upon all States not now possessing them, in which category belongs Michigan so far as the registration of births is concerned. Should the Legislature of Michigan decide to act upon this important matter, the aid of the Census Office will be freely extended in perfecting the details of the necessary legislation, so that the errors and defects that have often occurred in the enactment of such laws may be averted.

Following is the full text of the Joint Resolution passed by both Houses of Congress and approved by the President of the United States under date of February 11, 1903:

[PUBLIC RESOLUTION—No. 7.]

Joint Resolution Requesting State authorities to cooperate with Census Office in securing a uniform system of birth and death registration.

Whereas the registration of deaths at the time of their occurrence furnishes official record information of much value to individuals; and

Whereas the registration of births and deaths, with information upon certain points, is essential to the progress of medical and sanitary science in preventing and restricting disease and in devising and applying remedial agencies; and

Whereas all of the principal countries of the civilized world recognize the necessity for such registration and enforce the same by general laws; and

Whereas registration in the United States is now confined to a few States, as a whole, and the larger cities, under local laws and ordinances which differ widely in their requirements; and

Whereas it is most important that registration should be conducted under laws that will insure a practical uniformity in the character and amount of information available from the records; and

Whereas the American Public Health Association and the United States Census Office are now cooperating in an effort to extend the benefits of registration and to promote its efficiency by indicating the essential requirements of legislative enactments designed to secure the proper registration of all deaths and births and the collection of accurate vital statistics, to be presented to the attention of the legislative authorities in nonregistration States, with the suggestion that such legislation be adopted; Now, therefore,

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the Senate and House of Representatives of the United States hereby expresses approval of this movement and requests the favorable consideration and action of the State authorities, to the end that the United States may attain a complete and uniform system of registration.

Approved, February 11, 1903.

Now that the National Government has taken up this matter and is making systematic and continued efforts, through the Census Office, to improve the registration of vital statistics in this country, we may expect additions to the list of registration States and the general adoption of better methods for the collection and compilation of vital statistics in this country. The State of Michigan will not be behind in this progressive movement, and cordial support and earnest cooperation will be extended to the Federal authorities in the work.

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THIRTY-FOURTH ANNUAL

REGISTRATION REPORT OF MICHIGAN

CONTAINING VITAL STATISTICS FOR THE YEAR 1900.

PART I.—VITAL STATISTICS AND POPULATION, 1900.

This part of the report is intended to give a general idea of the results of registration during the year 1900, and to serve as an introduction to the more detailed study of the statistics in the divisions following. This report is the third one of the new series containing accurate statistics of deaths as collected under the registration law of 1897, and is of especial interest because the returns of deaths are probably more nearly representative of normal conditions in the State than those presented heretofore.

VITAL STATISTICS RETURNED FOR 1900.

The principal facts in regard to the returns of vital statistics for the year 1900 may be seen in the following summary:

Total number of deaths, 1900.....	33,778
Deaths per 1,000 population, 1900.....	14.0
Total number of marriages, 1900.....	23,295
Persons married, 1900.....	46,590
Persons married per 1,000 population, 1900.....	19.2
Total number of divorces, 1900.....	2,418
Persons divorced per 1,000 population, 1900.....	2.0
Total number of births, 1900.....	43,699
Births per 1,000 population, 1900.....	18.1

The usual comparison of births and deaths, their difference constituting what is known as the natural increase of population, cannot be made for this year, since the improved accuracy of the returns of deaths removes them from the plane of comparison with the very imperfect returns of births. It is very doubtful if the statements of natural increase formerly made in these reports, and based on the assumption that the returns of births and deaths were approximately defective to about the same amount, were of any value whatever.

RETURNS BY MONTHS, 1900.

The distribution of the returns by months during the year 1900 may be seen in Table 1. The average daily numbers of deaths, marriages and births are also given for the year and months. This average enables comparisons to be made of the rates of mortality, nuptiality and natality between the several months with as much accuracy as by the computation

of rates. The imperfections of the returns of births, however, invalidate the figures in this respect. It will be noted that the month of greatest daily mortality was April and the month of least daily mortality was June. The maximum number of marriages per day was in the month of October, and the least number in February. Owing to the large number of marriages of non-residents included in the returns of the present year most of which were performed at St. Joseph during the summer excursion season, the relations of the months in regard to marriages of inhabitants of this State are not correctly shown. The highest daily number of births was in April, and the least daily number in January. As the deaths are now much more accurately registered than the births, no inferences can be drawn as to the amount of natural increase in the several months of the year.

Table 1.—Vital statistics of Michigan, by months, 1900.

	Total number registered, 1900.	Returns by months, 1900.												
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.
DEATHS:														
Number	33,778	2,684	2,698	3,135	3,121	2,823	2,326	2,578	2,995	3,369	2,832	2,520	2,697	.....
Daily average	92.6	86.6	96.4	101.1	104.0	91.1	77.5	83.2	96.6	112.3	91.4	84.0	87.0	.....
MARRIAGES:														
Number	23,295	1,717	1,541	1,322	1,765	1,779	2,398	1,800	1,876	2,192	2,496	2,332	2,075	.....
Daily average	63.8	55.4	55.0	42.6	58.8	57.4	79.9	58.1	60.5	73.1	80.5	77.7	66.9	.....
BIRTHS:														
Number	43,699	3,069	3,105	3,821	3,930	3,755	3,501	3,777	3,983	3,880	3,658	3,415	3,762	43
Daily average	119.7	99.0	110.9	123.3	131.0	121.1	116.7	121.8	128.5	129.3	118.0	113.8	121.4	.....

COMPARISON OF 1900 WITH PREVIOUS YEARS OF REGISTRATION.

The vital statistics for the year 1900 may be compared with the returns for the preceding years of registration by means of Table 2. In this table estimated populations are presented for the intercensal and post-censal years, by whose aid the death rates, marriage rates and birth rates may be computed for each year, and thus fairly accurate comparisons be made of the data with allowance for the increase of population of the State.

According to the returns the number of marriages recorded in 1900, 23,295, was the largest ever registered in Michigan. This, however, is due in part to the addition of a large number of marriages of nonresidents which were performed at St. Joseph during the excursion season, so that the true increase was probably not as large as indicated.

The marriage rate for the year, including these foreign marriages, was 19.2 per 1,000 population; that for the preceding year being 18.3 per 1,000 population, and for 1898, 17.1 per 1,000 population.

The number of births for the year, 43,699, exceeded the number returned for 1899 by 1,881, and the number returned for 1898, by 237. While it is the largest number returned since 1896, the birth rate, 18.1, is the lowest birth rate on record in this State, with the exception only of 1899, in which year the birth rate was 17.5, and the number of births the lowest since 1886. Although the number of births is higher in 1900 than in 1898 the birth rate is 0.3 per 1,000 population lower.

All of the birth rates shown in Table 2 are known to be very much lower than the truth; nevertheless, as the method of enumeration has been the same throughout the years covered by the table, the relative indications as shown by the variations in the rates from year to year may be roughly taken as marking the changes in the birth rate. There has been, on the whole, a considerable decrease from the earlier years of registration, the unusually high rates indicated for certain years, 1887-91, having been due to fraudulent returns made by the enumerators appointed by the common council of the city of Detroit. It would be very desirable that these statistics of births should be collected in such a way that they might be reasonably accurate, and the conclusions drawn from them would then be acceptable without making the usual large discount for imperfect returns. Probably not much more than two-thirds of the births that actually occur in the State are enumerated at present under the antiquated and imperfect law which has received no amendment since 1869.

While the excess of deaths in 1899 over 1898 was 4,337, the number of deaths returned for the year 1900, 33,884, represents a decrease of 10 from the number recorded for 1899. It will thus be seen that the large increase from 1898 to 1899 was extraordinary. This increase may have been due to some extent to the greater accuracy of registration, as the law had been in force only four months when the first statistics for the year 1898 were returned. It is probable, however, that the year 1898 was a year of phenomenally low mortality, and that the increased number of deaths shown for 1899 marks the return to the usual or normal condition of the death rate for this State. The rate per 1,000 population for the year 1900, 14.0, is slightly lower than for 1899, 14.2, but both are considerably higher than the rate for 1898, which was 12.5.

The three years 1898-1900 show a large increase in the number of deaths as compared with any of the preceding years of registration given in Table 2. This is not due to the fact that more deaths occurred in these latter years, but is caused by the fact that large numbers of deaths were not recorded under the old law providing for their enumeration by supervisors. Hence no comparison can be made between the number of deaths returned for the years 1898-00, under accurate registration, with the imperfect records of the preceding years.

The death rate shown for 1898, 12.5 per thousand population, is larger than the death rate of any preceding year, although, as stated, the year 1898 was undoubtedly a year of very low mortality; probably, indeed, the most favorable that has occurred in this State for over thirty years.

It will be noted that no attempt is made in Table 2 to indicate the excess of births over deaths for the two years of registration under the new law, 1898-00. This is necessarily so, because as the deaths are more accurately registered for these years than the births, it is evident that no just comparisons can be made. For the preceding years, both births and deaths being imperfectly enumerated, the differences may, perhaps, be taken as representing the amounts of natural increase, although it is very doubtful if they are of much value in this respect since there is nothing to show that the old returns of births and deaths were imperfect in the same degree.

Table 2.—Marriages, births and deaths registered in Michigan, for the years 1867-1900, with rates per 1,000 population. (Stillbirths included in both births and deaths.)

Years.	Population.	Registration returns, 1867-1900.				Rates per 1,000 population.			
		Number of marriages.	Number of births.	Number of deaths.	Excess of births over deaths.	Persons married.	Births.	Deaths.	Excess of births over deaths.
1867*.....	993,902	4,312	14,000	4,400	9,591	.....	.....	.....	.....
1868.....	1,057,288	8,697	25,020	8,235	16,785	16.5	23.7	7.8	15.9
1869.....	1,120,673	8,459	27,093	9,145	17,948	15.1	24.2	8.2	16.0
1870†.....	1,184,059	9,791	26,663	10,766	15,897	16.5	22.5	9.1	13.4
1871.....	1,221,592	10,605	25,992	9,728	16,264	17.4	21.3	8.0	13.3
1872.....	1,259,045	10,752	27,993	13,371	14,622	17.1	22.2	10.6	11.6
1873.....	1,296,538	11,897	34,608	14,258	20,350	18.4	26.7	11.0	15.7
1874†.....	1,334,031	12,255	31,151	12,500	18,651	18.4	23.4	9.4	14.0
1875.....	1,384,515	11,851	31,958	11,990	19,968	17.1	23.1	8.7	14.4
1876.....	1,435,000	11,913	34,235	12,576	21,659	16.6	23.9	8.8	15.1
1877.....	1,485,484	11,899	33,395	12,919	20,476	16.0	22.5	8.7	13.8
1878.....	1,535,968	12,880	35,162	12,766	22,396	16.8	22.9	8.3	14.6
1879.....	1,586,453	13,892	34,122	14,407	19,715	17.5	21.5	9.1	12.4
1880†.....	1,636,937	14,935	35,323	16,102	19,221	18.2	21.6	9.8	11.7
1881.....	1,691,117	15,894	34,749	19,238	15,511	18.8	20.5	11.4	9.2
1882.....	1,745,298	16,830	37,026	16,425	20,601	19.3	21.2	9.4	11.8
1883.....	1,799,478	17,174	40,809	16,906	23,903	19.1	22.7	9.4	13.3
1884†.....	1,853,658	15,989	40,408	18,056	22,352	17.3	21.8	9.7	12.1
1885.....	1,893,697	15,885	42,119	16,646	25,473	16.8	22.2	8.8	13.5
1886.....	1,933,735	16,665	41,095	18,187	22,908	17.2	21.3	9.4	11.8
1887.....	1,973,774	17,179	46,226	19,482	26,744	17.4	23.4	9.9	13.5
1888.....	2,013,812	17,297	48,952	21,764	27,188	17.2	24.3	10.8	13.5
1889.....	2,053,851	18,317	49,272	20,315	28,957	17.8	24.0	9.9	14.1
1890†.....	2,093,889	18,664	52,306	21,642	30,664	17.8	25.0	10.3	14.6
1891.....	2,130,827	19,244	50,812	22,079	28,733	18.1	23.8	10.4	13.5
1892.....	2,167,765	20,107	46,221	21,729	24,492	18.6	21.3	10.0	11.3
1893.....	2,204,703	19,197	47,722	21,982	25,740	17.4	21.6	10.0	11.7
1894†.....	2,241,641	18,220	44,596	20,959	23,637	16.3	19.9	9.3	10.5
1895.....	2,271,531	18,952	46,273	22,757	23,516	16.7	20.4	10.0	10.4
1896.....	2,301,421	18,897	46,302	21,983	24,319	16.4	20.1	9.6	10.5
1897.....	2,331,311	18,579	43,688	20,169	23,519	15.9	18.7	8.7	10.6
1898.....	2,361,201	20,138	43,462	† 29,557	||	17.1	18.4	12.5	||
1899.....	2,391,091	21,877	41,818	§ 33,894	||	18.3	17.5	14.2	||
1900†.....	2,420,982	23,295	43,699	† 33,884	||	19.2	18.1	14.0	||

* From April 5 to December 31, 1867.

† Census years.

‡ Including 85 deaths from townships under the old law.

§ Including 219 deaths from townships under the old law.

|| This difference is no longer stated. See text for explanation.

¶ Including 106 deaths from townships under the old law. See p. 78.

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Table 3.—Births and deaths, with exclusion of stillbirths, registered in Michigan for the years 1867-1900, with rates per 1,000 population.

Years.	Population.	Registration returns, 1867-1900.			Rates per 1,000 population.			Still- births per 1,000 births.	Still- births per 1,000 deaths.
		Number of births.	Number of deaths.	Number of still- births.	Births.	Deaths.	Still- births.		
1867*.....	993,902	13,979	4,409	21	.....	.....	.....	1.5	.....
1868.....	1,057,288	24,968	8,189	52	23.6	7.7	.....	2.1	5.6
1869.....	1,120,673	26,952	9,016	141	24.0	8.0	0.1	5.2	14.3
1870†.....	1,184,059	26,589	10,540	74	22.5	8.9	0.1	2.8	21.4
1871.....	1,221,562	25,904	9,460	88	21.2	7.7	0.1	3.4	28.3
1872.....	1,259,045	27,692	13,167	301	22.0	10.5	0.2	10.9	15.5
1873.....	1,296,538	34,260	13,984	348	26.4	10.8	0.3	10.2	19.6
1874†.....	1,334,031	30,687	12,036	464	23.0	9.0	0.3	15.1	38.6
1875.....	1,384,516	31,929	11,361	629	22.6	8.2	0.5	20.1	55.4
1876.....	1,435,000	33,589	11,030	646	23.4	8.3	0.5	19.2	54.2
1877.....	1,485,484	32,675	12,199	720	22.0	8.2	0.5	22.0	59.0
1878.....	1,535,968	34,369	11,973	793	22.4	7.7	0.5	23.1	66.2
1879.....	1,586,453	33,373	13,658	749	21.0	8.6	0.5	22.4	54.8
1880†.....	1,636,937	34,585	15,354	738	21.1	9.4	0.5	21.3	48.0
1881.....	1,691,117	34,058	18,547	691	20.1	11.0	0.4	20.3	37.3
1882.....	1,745,298	36,234	15,633	792	20.8	9.0	0.5	21.9	50.7
1883.....	1,799,478	39,925	16,022	884	22.2	8.9	0.5	22.1	55.2
1884†.....	1,853,658	39,489	17,137	919	21.3	9.2	0.5	23.3	53.6
1885.....	1,893,697	41,111	15,638	1,008	21.7	8.3	0.5	24.5	64.5
1886.....	1,933,735	40,186	17,278	909	20.8	8.9	0.5	22.6	52.6
1887.....	1,973,774	45,329	18,585	807	23.0	9.4	0.5	19.8	48.3
1888.....	2,013,812	47,594	20,406	1,358	23.6	10.1	0.7	28.5	66.5
1889.....	2,053,851	48,070	19,113	1,202	23.4	9.3	0.6	25.0	62.9
1890†.....	2,093,889	50,909	20,245	1,397	24.3	9.7	0.7	27.4	69.0
1891.....	2,130,827	49,722	20,989	1,090	23.3	9.9	0.5	21.9	51.9
1892.....	2,167,765	45,207	20,715	1,014	20.9	9.6	0.5	22.4	49.0
1893.....	2,204,703	46,703	20,963	1,019	21.2	9.5	0.5	21.8	48.6
1894†.....	2,241,641	43,594	19,957	1,002	19.4	8.9	0.4	22.5	50.2
1895.....	2,271,531	45,164	21,648	1,109	19.9	9.5	0.5	24.0	48.7
1896.....	2,301,421	45,048	20,729	1,254	19.6	9.0	0.5	27.1	57.0
1897.....	2,331,311	42,669	19,150	1,019	18.3	8.2	0.4	23.8	.....
1898.....	2,361,201	42,916	28,248	552	18.2	12.0	0.2	12.9	46.1
1899.....	2,391,091	41,218	32,500	1,309	17.2	13.6	0.3	14.6	42.9
1900†.....	2,420,982	43,161	32,559	1,394	17.8	13.4	0.2	12.5	40.7

* From April 5 to December 31, 1867.

† Census years.

‡ For these years two statements are given of the number of stillbirths, the upper figures representing the number returned in births, the lower in deaths.

§ Including 82 deaths in nonregistration townships, 9 of which were stillbirths.

|| Including 219 deaths in nonregistration townships, 8 of which were stillbirths.

¶ Including 106 deaths in nonregistration townships.

Table 4.—Persons married per 1,000 living population in certain countries and states during the years 1886-1900.

Country or state.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.
Austria	15.7	15.8	16.0	15.1	15.1	15.6	15.6	15.9	15.8	16.2	15.9	16.2	15.7	16.5	.....
Belgium	13.4	14.2	14.2	14.5	14.5	14.8	15.4	15.2	15.1	15.5	16.2	16.4	16.6	16.5	17.2
Denmark	14.2	14.0	14.2	14.2	13.8	13.6	13.6	14.1	13.9	14.2	14.6	15.0	15.2	15.1	15.3
France	14.8	14.5	14.4	14.2	14.0	15.0	15.2	15.0	15.0	14.8	15.2	15.2	14.8	15.3	15.5
German Empire	15.8	15.6	15.6	16.0	16.1	16.1	15.9	15.8	15.9	15.9	16.4	16.7	16.9	17.1	17.0
Prussia	16.3	16.0	16.0	16.3	16.4	16.3	16.1	16.1	16.1	16.0	16.5	16.8	16.9	17.1	17.1
Holland	13.9	14.0	13.8	13.9	14.2	14.2	14.4	14.6	14.4	14.7	14.9	14.8	14.6	14.9	15.2
Hungary	19.3	18.0	18.7	16.3	16.4	17.2	18.4	18.7	18.4	16.9	16.0	16.2	16.6	17.9	17.7
Italy	15.9	15.9	15.9	15.4	14.7	15.0	15.0	14.8	15.0	14.7	14.2	14.5	13.9	14.8	14.3
Japan .....	.....	.....	.....	.....	16.1	16.0	17.0	17.3	17.3	17.3	23.5	16.9	21.5	13.4	.....
New South Wales	16.1	15.1	15.1	14.1	14.3	14.8	13.6	12.9	12.5	12.8	13.3	13.5	13.4	13.8	14.8
New Zealand	12.0	12.0	12.0	11.9	12.2	12.1	12.5	12.4	12.3	11.9	13.7	13.7	13.8	14.6	15.3
Norway	13.0	12.5	12.2	12.5	13.0	13.2	12.7	12.9	12.8	13.0	13.4	13.4	14.0	14.3	13.9
Sweden	12.8	12.5	11.8	12.0	12.0	11.7	11.4	11.3	11.5	11.7	11.9	12.1	12.3	12.5	12.3
Switzerland	13.9	14.2	14.2	14.1	14.0	14.2	14.4	14.3	14.3	14.5	15.0	15.6	15.5	15.6	15.5
United Kingdom	13.3	13.5	13.5	14.1	14.5	14.6	14.5	13.9	14.2	14.3	15.0	15.2	15.4	15.7	15.1
England and Wales	14.2	14.4	14.4	15.0	15.5	15.6	15.4	14.7	15.1	15.0	15.8	16.0	16.3	16.5	16.0
Ireland	8.4	8.6	8.4	9.0	8.9	9.2	9.3	9.4	9.4	10.1	10.1	10.1	9.9	9.8	9.6
Scotland	12.6	12.7	12.8	13.3	13.7	13.9	14.1	13.3	13.4	13.7	14.5	14.7	15.1	15.4	14.6
United States:															
Massachusetts	18.0	19.0	18.7	18.7	18.6	18.9	19.2	19.1	16.9	18.5	18.5	17.6	16.6	17.2	17.4
Michigan	17.2	17.4	17.2	17.8	17.8	18.1	18.6	17.4	16.3	16.7	16.4	15.9	17.1	*18.3	*19.2
Rhode Island	17.7	18.0	18.7	17.3	18.4	18.5	19.1	18.7	17.4	18.2	17.0	15.6	15.8	16.2	18.4

* Returns vitiated by "excursion marriage" industry. Since 1898 the marriages recorded no longer relate exclusively to the inhabitants of Michigan.

In Table 3, the births and deaths are stated exclusive of stillbirths. It is the usual practice in statistical reports to exclude stillbirths from the computation of birth rates and death rates, hence in this table the total numbers of births and deaths, as given in Table 2, are reduced by the subtraction of the number of stillbirths reported for each year. The rates based on the returns exclusive of stillbirths, should ordinarily be used in making comparisons with other States and foreign countries.

In both Table 2 and Table 3, the estimates of population are uniformly made by assuming that the population increased between the census years in arithmetical progression. This method has been proved to be more reliable for the estimate of the population of this State than the geometrical method sometimes employed, as was conclusively shown in the registration report for the year 1898. The figures for the intercensal years, up to and including 1900, will not be subject to further change.

Slight differences will be noticed between the populations used for the years 1895-99 in the last annual report and the populations used in the

Table 5.—Births registered per 1,000 living population in certain countries and states during the years 1886-1900. (Stillbirths excluded.)

Country or state.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.
Austria.....	38.0	38.2	37.9	37.9	36.7	37.0	36.2	37.9	36.7	38.1	38.0	37.5	36.2	37.1	.....
Belgium.....	29.6	29.4	29.1	29.5	28.7	29.6	28.9	29.5	29.0	28.5	29.0	29.0	28.6	28.8	28.9
Denmark.....	32.6	32.0	31.7	31.3	30.6	31.0	29.5	30.6	30.2	30.2	30.5	29.9	30.5	30.1	29.8
France.....	23.9	23.5	23.1	23.0	21.8	22.6	22.1	22.9	22.4	21.9	22.7	22.4	21.8	21.9	21.4
German Empire.....	37.0	36.9	36.6	36.4	35.7	37.0	35.7	36.8	35.9	36.1	36.3	36.0	36.2	35.9	35.6
Prussia.....	37.7	37.7	37.4	37.1	36.6	37.7	36.3	37.5	36.6	36.9	36.9	36.6	36.8	36.4	36.1
Holland.....	34.6	33.7	33.7	33.2	32.9	33.7	32.0	33.8	32.7	32.8	32.7	32.5	31.9	32.0	31.5
Hungary.....	45.6	44.2	43.8	43.7	40.3	42.3	40.3	42.5	41.3	41.5	40.3	40.1	37.5	39.0	39.3
Italy.....	37.0	39.0	37.6	38.4	35.9	37.3	36.3	36.7	35.7	35.1	35.0	35.0	33.8	34.2	32.9
Japan.....	27.3	27.1	29.6	30.2	29.2	27.2	30.7	20.0	29.9	30.3	30.8	31.4	31.3	31.0	.....
New South Wales.....	37.4	37.1	37.2	35.0	35.4	34.5	34.0	33.5	31.6	31.0	28.6	28.7	27.4	27.1	27.4
New Zealand.....	33.2	32.1	31.2	30.1	29.4	29.0	27.8	27.5	27.3	26.8	26.3	26.0	25.7	25.1	25.6
Norway.....	30.9	30.8	30.8	29.7	30.3	30.9	29.6	30.7	29.8	30.6	30.4	30.0	30.3	30.9	30.1
Sweden.....	29.8	29.7	28.8	27.7	28.0	28.3	27.0	27.4	27.1	27.5	27.2	26.7	27.1	26.2	26.9
Switzerland.....	28.0	28.0	27.8	27.6	26.4	27.8	27.4	27.7	27.1	27.1	27.9	28.1	28.4	28.9	28.6
United Kingdom.....	31.5	30.7	30.1	30.0	29.2	30.4	29.5	29.9	28.9	29.5	29.2	29.1	28.8	28.7	28.2
England and Wales.....	32.8	31.9	31.2	31.1	30.2	31.4	30.5	30.8	29.6	30.4	29.7	29.7	29.4	29.3	28.7
Ireland.....	23.2	23.1	22.8	22.7	22.3	23.1	22.5	23.0	22.9	23.2	23.6	23.5	23.2	22.9	22.7
Scotland.....	32.9	31.7	31.3	30.9	30.4	31.2	30.8	31.0	30.2	30.4	30.9	30.6	30.8	30.5	29.6
United States*.....	.....	.....	.....	.....	26.9	.....	.....	.....	.....	.....	.....	.....	.....	.....	27.2
Connecticut.....	22.2	22.8	22.2	23.4	23.3	24.8	24.7	25.4	24.9	24.4	24.9	23.3	23.5	22.6	22.6
Massachusetts.....	25.4	25.9	26.0	26.2	25.8	27.5	28.1	28.1	27.4	27.0	28.3	28.0	27.4	25.8	26.2
Michigan.....	20.8	21.1	20.3	21.3	19.8	20.8	20.9	21.2	19.4	19.9	19.6	18.3	18.2	17.2	17.8
New Jersey.....	20.0	21.4	22.0	20.8	20.9	19.5	20.3	21.0	21.3	19.0	18.2	18.0	18.0	15.8	17.1
Rhode Island.....	24.5	24.2	24.2	24.1	24.7	26.5	25.2	26.5	26.6	25.7	27.3	26.8	25.9	25.6	25.9

* Imperfect data.

present one. This is due to the fact that at the time of the publication of the last report, the returns of the United States census for 1900 had not been received and the populations were estimated on the increase from the United States census for 1890 to the State census for 1894. These estimated populations have been revised in accordance with the actual increase from 1894 to 1900, and, as stated above, will not be subject to further change.

MICHIGAN VITAL STATISTICS COMPARED WITH THOSE OF OTHER STATES AND COUNTRIES.

The significance of the vital rates of any state or country cannot be fully known until comparisons have been made with those of others. While the crude marriage, birth and death rates are not sufficient for the formation of absolutely reliable conclusions relative to the exact intensity of the marriage movement, or of the fecundity or sanitary condition of the populations so measured, nevertheless the crude rates,

Table 6.—Deaths registered per 1,000 living population in certain countries and states during the years 1886-1900. (Stillbirths excluded.)

Country or state.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.
Austria	29.4	28.9	29.2	27.3	29.4	28.2	28.8	27.2	27.8	27.7	26.4	25.6	24.9	25.4	.....
Belgium.....	21.1	19.3	20.1	19.1	20.6	21.0	21.8	20.3	18.6	19.5	17.5	17.2	17.6	18.8	19.3
Denmark	18.2	18.3	19.7	18.6	19.0	20.0	19.4	18.9	17.5	16.9	15.7	16.6	15.6	17.5	16.9
France.....	22.5	22.0	21.8	20.5	22.6	22.6	22.6	22.8	21.2	22.3	20.2	19.6	20.9	21.1	21.9
German Empire.....	26.2	24.2	23.7	23.7	24.4	23.4	24.1	24.6	22.3	22.1	20.8	21.3	20.6	21.5	22.1
Prussia.....	26.1	23.8	22.8	23.2	24.0	22.9	23.4	24.2	21.8	21.8	20.7	20.9	20.1	21.4	21.8
Holland.....	21.8	19.7	20.4	20.1	20.5	20.7	21.0	19.2	18.5	18.6	17.2	16.9	17.0	17.1	17.8
Hungary.....	31.7	33.8	32.0	29.9	32.4	33.1	35.0	31.1	30.4	29.6	28.8	28.4	27.8	27.0	26.9
Italy	28.7	28.0	27.6	25.6	26.4	26.2	26.3	25.3	25.1	25.2	24.2	22.1	23.1	22.1	23.7
Japan.....	24.6	19.3	19.1	20.4	20.4	21.0	21.7	22.8	20.5	20.4	21.6	20.5	20.4	21.0	.....
New South Wales.....	15.1	13.4	13.9	13.9	12.9	14.3	12.2	13.3	12.3	11.9	12.4	11.0	12.6	11.8	11.2
New Zealand.....	10.5	10.3	9.4	9.4	9.7	10.4	10.1	10.2	10.2	9.9	9.1	9.1	9.8	10.2	9.4
Norway.....	16.1	16.0	16.0	17.4	17.9	17.5	17.8	16.3	16.9	15.7	15.2	15.3	15.3	16.8	15.8
Sweden.....	16.6	16.1	16.0	16.0	17.1	16.8	17.9	16.8	16.4	15.2	15.6	15.4	15.1	17.6	16.8
Switzerland.....	20.8	20.3	20.0	20.3	20.8	20.4	18.8	19.9	19.9	19.1	17.7	17.6	18.2	17.6	19.3
United Kingdom.....	19.2	19.0	18.1	18.1	19.4	20.0	19.0	19.1	16.8	18.8	17.1	17.7	17.7	18.3	18.4
England and Wales...	19.5	19.1	18.1	18.2	19.5	20.2	19.0	19.2	16.6	18.7	17.1	17.4	17.6	18.3	18.2
Ireland.....	17.8	18.2	17.9	17.4	18.2	18.4	19.4	17.9	18.2	18.4	16.6	18.4	18.1	17.6	19.6
Scotland.....	18.9	19.0	18.0	18.4	19.7	20.7	18.6	19.5	17.2	19.7	16.9	18.8	18.4	18.6	18.6
United States*.....	.....	.....	.....	.....	19.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	17.8
Connecticut.....	16.2	17.0	17.1	17.0	18.3	19.2	19.0	18.6	16.8	17.8	17.5	15.7	15.8	15.7	18.0
Massachusetts.....	18.6	19.9	19.9	19.2	19.4	19.7	20.8	20.5	19.1	19.0	19.3	18.1	17.5	17.4	18.2
Michigan.....	8.9	9.4	10.1	9.3	9.7	9.9	9.6	9.5	8.9	9.5	9.0	8.2	112.0	13.6	13.4
New Jersey.....	17.8	19.0	17.0	19.0	19.8	19.5	21.6	19.9	19.1	18.3	17.9	16.9	15.1	16.7	16.7
Rhode Island.....	18.8	19.9	20.4	19.0	20.1	18.6	20.1	19.6	19.1	19.6	19.1	17.6	16.7	17.6	20.6

* Registration area only.

† New registration law for deaths in effect in Michigan for 1898.

taken without correction for dissimilar constitution of the population, must always form the first step in the comparative study of vital statistics. By means of the data contained in Tables 4, 5 and 6, which are chiefly derived from the tables of international statistics printed in the last report of the Registrar-General of England, the vital rates of Michigan for fifteen years past may be compared with those of various European countries, and also with the rates of certain states in this country and with those of New Zealand and New South Wales, as representative of the vital statistics of Australasia. Some statistics for Japan have also been added from the reports of the Imperial Bureau of Statistics of that country, and are of especial interest as comparing the movement of population of an oriental country with the European, American and Australasian data presented. A diagram was given in the last report illustrative of these rates, to which reference may be made.

RETURNS COMPARED WITH POPULATION, BY COUNTIES, 1900.

In Table 7 populations are given for each of the counties of the State as shown by the United States census of 1900.

The numbers of deaths, marriages, divorces and births returned from each county are also shown and the corresponding rates per thousand population for the year. Following the usual custom, the marriage and divorce rates are stated, not as so many marriages and divorces per thousand population, but as *persons married* and *persons divorced* per thousand population.

As shown in the 1898 report, the crude figures representative of the vital rates of different counties cannot be directly compared without considering the age distribution and other important elements of the population. Thus, the number of deaths will be larger in proportion to the population, other things being equal, in the counties having the largest number of children under five years of age, and also in counties having unusual proportions of elderly persons.

Persons married should properly be compared, not with the total population, but with the number of unmarried persons of marriageable age. In like manner, divorce rates should be based on the number of married persons in the population affording them, and birth rates should be based upon the number of married couples (neglecting the small factor of illegitimacy), or, as is usually more convenient, by referring to the number of women of childbearing age in the community.

These considerations are given so that the mistake may not be made of accepting the vital rates given in these tables as absolutely conclusive and hence basing erroneous deductions thereon. Such rates are necessary and form the first step in any statistical investigation of this character, but they require to be fully analyzed before absolutely reliable conclusions can be drawn.

It should be remembered that in some of the counties in the Upper Peninsula and in the northern portion of the Lower Peninsula, as shown on page 78, not all deaths were accurately registered in 1900 under the law requiring burial permits. These were in sparsely settled districts, having less than five persons to the square mile, according to the State census of 1894, and were supposed to be collected by the supervisors under the old law. An act of the legislature has since abolished these nonregistration districts, so that the slight errors due to imperfect enumeration are now done away with, but they may have slightly affected the statistics for the year 1900.

The death rates shown in Table 7 do not, as a rule, vary very widely from the State average of 14.0 per thousand population. That all of the rates for Alger county were excessive for 1899 because the county increased much more rapidly in population from 1894 to 1899 than the estimate, based on the increase between the former censuses, would indicate, is shown by a return of the rates to figures in no way larger than those shown for other counties. In fact the death rate for Alger county, 5.5, is next to the lowest given.

The marriage rate for Berrien county is worthless because of the large number of foreign marriages, including mostly residents of Chicago, who take advantage of the proximity of St. Joseph during the summer months.

VITAL STATISTICS OF MICHIGAN, 1900.

Table 7.—Deaths, marriages, divorces and births in Michigan by counties, for the year 1900, with rates per 1,000 estimated population.

State and counties.	Total population U. S. census, 1900.	Number of deaths registered, 1900.*	Number of marriages registered, 1900.	Number of divorces granted, 1900.	Number of births registered, 1900.	Rates per 1,000 population, 1900.			
						Deaths.	Persons married.	Persons divorced.	Births.
STATE....	2,420,982	35,884	23,295	2,418	45,699	14.0	19.2	2.0	18.1
Alcona.....	5,691	45	36	2	110	7.9	12.7	0.7	19.3
Alger.....	5,868	69	65	5	117	5.5	22.2	1.7	19.9
Allegan.....	38,812	444	312	43	634	11.4	16.1	2.2	16.3
Alpena.....	18,254	275	188	8	471	15.1	20.6	0.9	25.8
Antrim.....	16,568	273	172	20	198	16.5	20.8	2.4	12.0
Arenac.....	9,821	120	96	5	199	12.2	19.5	1.0	20.3
Baraga.....	4,320	39	44	0	94	9.0	20.4	.....	21.8
Barry.....	22,514	277	212	42	298	12.3	18.8	3.7	13.2
Bay.....	62,378	873	557	38	1,240	14.0	17.9	1.2	19.9
Benzie.....	9,685	121	95	10	169	12.5	19.6	2.1	17.4
Berrien.....	49,165	606	† 1,448	56	585	12.3	58.9	2.3	11.9
Branch.....	27,811	403	277	31	358	14.5	19.9	2.2	12.9
Calhoun.....	49,315	663	509	94	610	13.4	20.6	3.8	12.4
Cass.....	20,876	289	212	18	216	13.8	20.3	1.7	10.3
Charlevoix....	13,966	198	167	8	221	14.2	23.9	1.1	15.8
Cheboygan....	15,516	178	129	8	288	11.5	16.6	1.0	18.6
Chippewa.....	21,338	308	200	5	458	14.2	18.7	0.5	21.5
Clare.....	8,360	105	67	9	156	12.1	16.0	2.2	18.7
Clinton.....	25,136	321	230	27	364	12.8	18.3	2.1	14.5
Crawford.....	2,943	22	26	4	45	7.5	17.7	2.7	15.3
Delta.....	23,881	383	248	12	588	16.0	20.8	1.0	24.0
Dickinson....	17,890	248	194	7	575	13.9	21.7	0.8	32.1
Eaton.....	31,688	399	310	52	363	12.6	19.6	3.3	11.5
Emmet.....	15,931	223	171	26	296	14.0	21.5	3.3	18.6
Genesee.....	41,804	551	402	54	495	13.2	19.2	2.6	11.8
Gladwin.....	6,564	70	57	1	115	10.7	17.4	0.3	17.5
Gogebic.....	16,738	267	181	2	564	16.0	21.6	0.2	33.7
G'd Traverse..	20,479	305	237	30	288	14.9	23.1	2.9	14.1
Gratiot.....	29,889	398	316	35	420	13.3	21.1	2.3	14.1
Hillsdale....	29,865	408	313	35	296	13.7	21.0	2.3	9.9
Houghton....	66,063	959	752	11	2,534	14.4	22.8	0.3	38.4
Huron.....	34,162	357	276	7	814	10.5	16.2	0.4	23.8
Ingham.....	39,818	578	375	31	422	14.5	18.8	1.6	10.6
Ionia.....	34,329	502	312	44	435	14.6	18.2	2.6	12.7
Iosco.....	10,246	121	91	6	192	11.8	17.8	1.2	18.7
Iron.....	8,990	86	103	6	212	8.5	22.9	1.3	23.6
Isabella.....	22,784	302	219	26	421	13.3	19.2	2.3	18.5
Jackson.....	48,222	597	474	76	739	12.4	19.7	3.2	15.3
Kalamazoo....	44,310	737	435	68	778	16.6	19.6	3.1	17.6
Kalkaska....	7,133	105	68	2	83	14.7	19.1	0.6	11.6
Kent.....	129,714	1,893	1,294	211	2,416	14.6	20.0	3.3	18.6
Keweenaw....	3,217	46	22	1	103	14.0	13.7	0.6	32.0
Lake.....	4,957	66	58	4	74	12.1	23.4	1.6	14.9
Lapeer.....	27,641	356	242	35	380	12.9	17.5	2.5	13.7
Leelanau....	10,556	155	81	7	186	14.7	15.3	1.3	17.6
Lenawee.....	48,406	687	464	57	553	14.2	19.2	2.4	11.4
Livingston....	19,664	252	152	16	235	12.8	15.6	1.6	12.0
Luce.....	2,983	31	25	2	41	9.7	14.8	1.3	13.7
Mackinac....	7,703	77	68	4	99	10.0	17.7	1.0	12.9
Macomb.....	33,244	514	245	23	508	15.5	14.7	1.4	15.3
Manistee....	27,856	383	201	5	608	13.7	14.4	0.4	21.8
Marquette....	41,239	680	378	7	1,293	16.3	18.3	0.3	31.4
Mason.....	18,885	277	163	7	404	14.7	17.3	0.7	21.4
Mecosta.....	20,693	280	192	20	305	13.5	18.6	1.9	14.7
Menominee....	27,046	327	291	16	418	12.1	21.5	1.2	15.5
Midland.....	14,439	202	110	8	272	14.0	15.2	1.1	18.8
Missaukee....	9,308	103	75	10	232	10.4	16.1	2.1	24.9

* Including 106 deaths from nonregistration townships. See p. 78.

† This includes many marriages of residents of Chicago during the summer excursion season.

Table 7.—Concluded.—Deaths, marriages, divorces and births in Michigan by counties, for the year 1900, with rates per 1,000 estimated population.

Counties.	Total population U.S. census, 1900.	Number of deaths registered, 1900.*	Number of marriages registered, 1900.	Number of divorces granted, 1900.	Number of births registered, 1900.	Rates per 1,000 population, 1900.			
						Deaths.	Persons married.	Persons divorced.	Births.
Monroe.....	32,754	455	363	23	538	13.9	22.2	1.4	16.4
Montcalm.....	32,754	464	321	42	409	14.2	19.6	2.6	12.5
Montmorency.....	3,234	26	26	4	57	6.5	16.1	2.5	17.6
Muskegon.....	37,036	495	320	41	632	13.4	17.3	2.2	17.1
Newaygo.....	17,673	217	151	14	176	12.3	17.1	1.6	10.0
Oakland.....	44,792	635	356	37	439	14.2	15.9	1.7	9.8
Oceana.....	16,644	221	135	24	245	13.3	16.2	2.9	14.7
Ogemaw.....	7,765	84	72	4	82	10.8	18.5	1.0	10.6
Ontonagon.....	6,197	40	38	3	129	6.1	12.3	1.0	20.8
Osceola.....	17,869	265	159	13	331	14.3	17.8	1.5	18.5
Oscoda.....	1,468	6	14	1	16	4.1	19.1	1.4	10.9
Otsego.....	6,175	87	54	3	110	12.1	17.5	1.0	17.8
Ottawa.....	39,667	527	331	18	798	13.3	16.7	0.9	20.1
Presque Isle.....	8,821	55	86	4	218	5.9	19.5	0.9	24.7
Roscommon.....	1,787	14	8	1	29	7.8	9.0	1.1	16.2
Saginaw.....	81,222	1,095	766	111	1,182	13.5	18.9	2.7	14.6
St. Clair.....	55,228	765	467	36	895	13.9	16.9	1.3	16.2
St. Joseph.....	23,889	327	204	12	259	13.7	17.1	1.0	10.8
Sauillac.....	35,065	413	280	15	645	11.8	16.0	0.9	18.4
Schoolcraft.....	7,889	109	77	12	164	13.8	19.5	3.0	20.8
Shiawassee.....	33,866	445	367	70	498	13.1	21.7	4.1	14.7
Tuscola.....	35,890	491	327	33	611	13.7	18.2	1.8	17.0
Van Buren.....	33,274	447	287	46	377	13.4	17.3	2.8	11.3
Washtenaw.....	47,761	613	325	52	594	12.8	13.6	2.2	12.4
Wayne.....	348,793	5,776	2,930	362	8,321	16.6	16.8	2.2	23.9
Wexford.....	16,845	269	194	20	356	16.0	23.0	2.4	21.1

* Including 106 deaths from nonregistration townships. See p. 78.

VITAL STATISTICS OF MICHIGAN, 1900.

Table A. Deaths, marriages, divorces and births in Michigan, by counties, for the years 1899-1900, showing also the increase (or decrease) of the number registered for 1900 as compared with that of the preceding year. (Stillbirths included in births and deaths.)

State and counties	Deaths.		Marriages.		Divorces.		Births.	
	Number in 1900.	Increase or de- crease.	Number in 1900.	Increase or de- crease.	Number in 1900.	Increase or de- crease.	Number in 1900.	Increase or de- crease.
STATE.....	33,884	-10	21,225	1,418	2,418	2,218	43,600	41,818
Alcona.....	45	43	36	36	2	1	110	56
Alcona.....	69	92	65	43	5	5	117	129
Alcona.....	411	672	312	323	43	40	634	627
Alcona.....	275	253	188	174	8	8	471	451
Alcona.....	120	172	160	160	20	22	188	207
Alcona.....	127	7	96	73	5	5	199	162
Alcona.....	39	65	44	26	0	1	94	66
Alcona.....	277	296	212	227	42	30	298	253
Alcona.....	873	863	657	566	34	34	1,240	1,376
Alcona.....	121	136	15	72	10	9	109	172
Alcona.....	626	623	1,448	1,077	56	54	565	482
Alcona.....	403	402	296	31	31	31	354	325
Alcona.....	643	765	669	476	60	60	610	629
Alcona.....	289	298	212	219	16	16	216	222
Alcona.....	198	167	167	136	8	3	221	187
Alcona.....	178	217	139	130	8	16	288	276
Alcona.....	308	296	290	165	6	6	458	398
Alcona.....	105	93	67	60	9	7	156	106
Alcona.....	321	310	230	234	27	32	364	410
Alcona.....	22	26	4	23	4	1	45	67
Alcona.....	383	310	248	215	11	11	588	490
Alcona.....	248	213	6	101	33	5	575	543
Alcona.....	359	339	310	337	53	27	363	379
Alcona.....	223	160	171	132	13	13	296	200
Alcona.....	561	565	402	404	61	61	495	496
Alcona.....	70	47	57	47	1	6	115	99
Alcona.....	267	213	181	148	33	5	564	482
Alcona.....	305	312	237	217	30	40	288	289
Alcona.....	398	415	316	312	35	60	420	426
Alcona.....	408	448	313	306	35	35	286	284
Alcona.....	950	1,002	762	645	11	27	2,534	2,242
Alcona.....	357	363	276	253	7	7	814	739
Alcona.....	578	538	375	401	31	43	422	497
Alcona.....	502	502	312	314	44	41	485	410
Alcona.....	121	150	91	71	6	8	174	118
Alcona.....	80	56	103	60	0	0	212	105

VITAL STATISTICS AND POPULATION.

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Adams.....	302	301	1	219	187	32	26	13	13	421	385	56
Albany.....	527	644	-47	474	504	-30	76	86	-10	739	668	71
Albany.....	737	690	38	435	456	-21	68	60	8	778	473	305
Albany.....	108	110	-5	68	70	-11	2	5	-3	83	100	-17
Albany.....	1,833	2,011	-118	1,294	1,393	-9	211	290	-9	2,416	2,123	293
Albany.....	46	45	1	22	19	3	1	0	1	103	81	22
Albany.....	68	76	-10	58	50	8	4	2	2	74	77	-3
Albany.....	356	380	-34	242	244	-2	35	18	17	380	326	54
Albany.....	155	181	-26	81	77	4	7	2	5	186	187	-1
Albany.....	687	646	41	464	459	5	67	49	8	553	522	31
Albany.....	263	290	-28	192	173	-21	16	23	-7	235	186	49
Albany.....	31	28	3	25	27	2	4	2	1	41	74	-33
Albany.....	77	84	-7	68	67	11	4	2	2	99	111	-12
Albany.....	514	522	-8	245	220	16	23	22	1	558	471	87
Albany.....	383	383	0	201	210	-9	5	16	-9	608	576	32
Albany.....	680	668	112	378	357	21	7	14	-7	1,263	1,200	63
Albany.....	277	223	54	163	140	23	7	5	2	404	423	-19
Albany.....	290	328	-46	192	175	17	20	24	-6	305	321	-16
Albany.....	302	303	-1	110	118	-8	8	10	0	418	401	18
Albany.....	103	88	15	75	80	-5	10	8	0	272	272	0
Albany.....	455	426	28	383	314	49	23	25	-2	538	509	23
Albany.....	464	550	-86	321	315	3	42	30	12	469	527	11
Albany.....	26	17	9	26	15	11	4	0	4	57	439	-30
Albany.....	408	461	24	390	298	12	41	34	7	632	625	7
Albany.....	217	250	-33	151	158	-7	14	15	-2	176	200	-24
Albany.....	635	617	18	356	320	36	37	43	-5	439	465	-26
Albany.....	221	180	28	135	151	-26	24	21	3	245	288	-43
Albany.....	84	70	14	52	51	13	3	0	4	82	44	38
Albany.....	40	54	-14	38	31	7	3	1	2	129	40	89
Albany.....	235	211	44	109	160	-1	13	9	4	321	318	13
Albany.....	6	9	-3	14	0	9	1	1	0	16	20	-4
Albany.....	87	52	35	54	57	-3	3	10	-7	110	109	1
Albany.....	527	611	-84	331	291	40	18	12	-2	798	771	27
Albany.....	16	45	10	86	68	18	4	1	0	218	158	60
Albany.....	14	12	2	8	12	68	111	68	42	52	53	-41
Albany.....	1,053	1,063	32	786	688	-98	136	34	-2	1,822	1,822	0
Albany.....	765	751	14	467	453	-16	35	21	-9	880	872	8
Albany.....	328	328	-1	204	217	-13	12	21	-9	266	266	0
Albany.....	413	402	11	280	287	-7	15	14	1	645	680	-35
Albany.....	109	67	42	77	71	6	12	0	12	184	168	16
Albany.....	446	481	-36	367	369	-2	70	44	26	498	460	38
Albany.....	491	453	38	327	327	0	33	25	8	511	492	19
Albany.....	447	470	-23	287	322	-35	46	45	-2	577	542	35
Albany.....	613	631	-18	325	337	-32	52	60	0	544	510	34
Albany.....	5,716	5,652	123	2,930	2,671	253	382	325	50	8,321	8,100	219
Albany.....	289	236	33	194	178	16	20	21	-1	356	300	56

* Including 106 additional deaths returned under the old law from nonregistration districts.
† Including 219 additional deaths returned under the old law from nonregistration districts.

‡ Decrease indicated by a minus sign (-).

COMPARISON OF RETURNS FOR THE YEARS 1899-1900.

In Table 8 the returns of deaths, marriages, divorces and births are shown for each county for the past two years, and also the increase or decrease of the returns of the year 1900 as compared with those of the preceding year.

The returns for 1900 show a decrease of 10 deaths in the State from 1899. The counties showing increases or decreases were very evenly divided, there being 40 showing an increase in the number of deaths, 41 showing a decrease and 2 showing neither increase nor decrease.

The number of marriages increased 1,418, of which number 371 corresponded to the increase for the county of Berrien. Quite a large number of counties showed a decreased number of marriages for the year, as compared with the preceding one. The largest amount of decrease occurred in the counties of Van Buren and Washtenaw. Macomb and Ottawa, the counties showing the greatest decrease in the number of marriages from 1898 to 1899, both showed an increase from 1899 to 1900.

The number of divorces also showed a considerable increase for 1900 over 1899, but this may have been due in part to the greater accuracy of county clerks in making returns for the latter year. It is probable that a portion of this increase was in fact due to a higher divorce rate, but it will require comparisons of quite a large number of years to determine this fact conclusively.

The largest amounts of increase in the number of divorces for the year occurred in the counties of Wayne, Calhoun and Saginaw, and the largest amount of decrease occurred in the county of Gratiot, which was one of the counties showing the largest amount of increase in 1899. Calhoun, showing next to the largest increase of any county from 1899 to 1900, was one of the two showing the largest decrease from 1898 to 1899. Thus, while the divorce business of Michigan may be on the increase, it is not due to activity in any particular locality, unless it be Wayne county, where about one-fourth of the yearly increase occurred.

Births increased 1,881 for the year and the increase was quite uniformly distributed over the State, 52 counties showing an increase. The largest amounts of increase occurred in the counties of Houghton, Kalamazoo and Kent, and the largest amount of decrease in the county of Saginaw.

PART II.—DEATHS AND CAUSES OF DEATH IN MICHIGAN DURING THE YEAR 1900.

There were 33,884 deaths returned to the Department of State for the year 1900, which number includes 33,778 deaths registered in townships under the law requiring certificates of death and burial permits, and 106 deaths returned from sparsely settled districts by supervisors under the old law. As the latter deaths were not received at the State Department until nearly a year after the returns from the registration districts, and as the deaths returned by the supervisors are not distributed through the months of the year as deaths actually occurring in these districts, it was thought best not to vitiate the returns received from the promptly reporting districts under the new law by introducing the few deaths returned by supervisors. It would also have resulted in considerable delay to have included the latter, as the returns received from the registration districts were compiled before the law required the supervisors' returns to be received. Fortunately, by an act of the last legislature, the nonregistration districts have been abolished, and all deaths are now registered in Michigan as they occur.

In Table 1, Part I, may be seen the number of deaths returned for each month of the year 1900, together with the daily average. The largest number of deaths returned in any single month was in September, the average number being 112.3 deaths per day. The smallest number of deaths and the smallest average number were for the month of June, being 2,326 and 77.5, respectively.

The total number of deaths returned from registration districts, 33,778, includes 1,325 stillbirths, and the total number of deaths as given in Table 2, 33,884, includes 13 additional stillbirths found among the 106 deaths reported from nonregistration districts.

In Table 3 the total number of deaths is given exclusive of stillbirths in accordance with the usual custom in registration offices. As it has been the practice in the Michigan reports up to the present time to include stillbirths in the total deaths, they are so included in the present report, although in all of the tables the number of stillbirths is given in connection with the total, so that it can conveniently be subtracted and the total number of deaths, exclusive of stillbirths, readily be found for comparison with the corresponding figures of other States and countries. In the next report, in accordance with the International classification, which has now come into general use, we shall exclude stillbirths from deaths, making a separate class of them, under which, as with deaths, their causes may properly be considered.

In Table 2, Part I, the total death rate of the year, 14.0 per thousand population, may be compared with the death rate of the preceding year and also with the very imperfect rates obtained under the old registration law for the years 1868-97, inclusive. It should be understood that the increase in the death rate from 1897 to 1898 does not necessarily

correspond to any increased mortality for the State; in fact, it is believed that the year 1898 was a year of very exceptionally low mortality, and that if the rates for the preceding years could be accurately known there would probably be some decrease in passing from 1897 to 1898, rather than the apparent increase shown in the table. The death rate for 1900, 14.0 per thousand population, including stillbirths, represents a slight decrease over 1899, which had a rate of 14.2 per thousand population, inclusive of stillbirths. Both of these rates are very low as compared with the usually accepted standards of registration States and cities, and yet are not as low as was the rate for the exceptional year of 1898 which was 12.5.

In Table 3, the rates are given for the returns of births and deaths, exclusive of stillbirths. The rates for the years 1900, 1899 and 1898 are 13.4, 13.6 and 12.0 per thousand population, respectively. It is, of course, understood in this table, as in the preceding one, that the rates for these three years alone are directly comparable, since the rates for the preceding years of registration under the old law are too imperfect to show the true relations of the mortality.

While the death rates given for the years of registration prior to 1898, in Tables 2 and 3, Part I, are far too low to show the correct mortality of the State during the period of time covered, nevertheless, it is probable that the variations in mortality are for the most part correctly indicated. Since the method of enumeration remained uniform during the earlier period from 1867-97, there would seem to be no reason to doubt that the general degree of accuracy of the returns remained about the same, and hence that the variations in the true mortality of the State during that time are correctly indicated, although on a somewhat reduced scale.

It will be observed in Table 2 that the usual figures showing the difference between the number of births and number of deaths returned for the year, and also the corresponding rates of natural increase based on these figures, are omitted. This is for the reason that, while the registration law has been greatly improved in accuracy during the past two years so far as it regards the collection of deaths, the collection of births remains still under the old and greatly imperfect system of returns by supervisors. While both sets of statistics were returned by the same method and shared approximately the same degree of imperfections, the difference could be taken, with some qualifications, as representing the approximate amount of natural increase, but now that the returns of deaths have improved in accuracy, the difference between births and deaths would be far too small to represent the natural increase of the State, and hence has been entirely omitted. This is one of the reasons, apart from the very important ratios used for the study of infant mortality based upon the accurate registration of births, why it is very necessary that the State of Michigan should place the registration of births on a par with the other vital statistics now collected, in point of completeness.

In Table 6, Part I, the death rate of Michigan for the year 1900 may be compared with those of other States and foreign countries for the same year, and also the series of death rates for Michigan from 1886-1900 may be compared, with considerable qualification, with the others

there given. It should be remembered that up to the year 1898 the death rates in Michigan are only approximate, and that they must not be compared directly with those of other States and countries having more accurate registration. The variations, however, from year to year may, and frequently do, correspond in their general direction with those shown by more perfect statistics.

The distribution of deaths through the several counties of the State is shown, in connection with other classes of vital statistics, in Table 7, Part I, and death rates are there given based upon the population as given by the United States census for 1900. In comparing the death rates of the several counties, due attention should be given to the differences in age and sex distribution, which greatly affect rates of mortality.

In Table 8 comparison may be made directly of the deaths returned from each county in the State for the two years, 1899 and 1900, showing increases and decreases about equally, since the number of deaths scarcely varied from 1899 to 1900.

Having thus referred to the tables relating to deaths contained in Part I of this report, it may be well to state that all of the data in those tables, as well as all of that in this part of the report, so far as it relates to the mortality of the year 1900, are derived directly from the primary tables relating to deaths and the causes of deaths, as given in the pages numbered with Arabic numerals in the following part of this report.

As in previous reports, this portion is divided into two sections, viz., Section I, The Incidence of Deaths, by months, sex, age, geographical location, etc., and Section II, The Causes of Death. It should not be understood that the second division fails to study the factors mentioned in the preceding group, but its distinctive feature is that it classifies them with reference to particular diseases, instead of simply showing their relation to total mortality.

SECTION I.—INCIDENCE OF DEATHS IN MICHIGAN DURING THE YEAR 1900.

The tables in this section contain statements in regard to the incidence of deaths in the State during the year 1900, arranged to show the following particulars: (1) Deaths from all causes by months; (2) number and proportion of each sex among the decedents; (3) deaths by ages of decedents; (4) geographical distribution of deaths; and (5) location as urban and rural. Herewith is presented a brief statement of the more prominent facts contained in this section.

Following are some of the most important facts relative to the occurrence of deaths from all causes during the year 1900:

Total number of deaths returned, 1900	33,884
Death rate per 1,000 population, 1900.....	14.0
Deaths reported under new law, 1900.....	33,778
Death rate per 1,000 population, 1900.....	14.0

The latter figures relative to deaths returned by registrars under the law of 1897 are used as the basis of the discussions in this report unless otherwise stated. For statement of deaths returned from non-registration districts under the old law, see page 78. Following the practice obtaining for many years in these reports, stillbirths are included in the total deaths returned, and must be deducted for comparisons with most other states and countries:

Stillbirths registered, 1900	1,325
Stillbirth rate per 1,000 population, 1900.....	0.5

As to the monthly incidence of deaths, we have:

More than average mortality, 1900.....	February, March, April, August, September
Less than average mortality, 1900.....	January, May, June, July, October, November, December
Maximum mortality, 1900.....	September, 3,369 deaths or 17.1 per 1,000
Minimum mortality, 1900	June, 2,326 deaths or 11.8 per 1,000

By sex, there were:

Males dying in Michigan, 1900.....	17,948 or 14.4 per 1,000 male inhabitants
Females dying in Michigan, 1900.....	15,772 or 13.5 per 1,000 female inhabitants
Ratio of death rate of males to death rate of females, 1900.....	107 per cent

By age periods there were, exclusive of stillbirths, deaths as follows:

Under 1 year of age.....	6,806 or 20.3 per cent
Under 5 years of age.....	9,443 or 28.0 per cent
Aged 5 to 14 years.....	1,508 or 4.9 per cent
Aged 15 to 64 years.....	12,444 or 38.3 per cent
Aged 65 year and over.....	8,968 or 27.6 per cent

By geographical sections, we have the following:

Deaths in the Upper Peninsula.....	3,599 or 13.8 per 1,000 population
Northern counties.....	3,905 or 13.2 per 1,000 population
Central counties.....	5,808 or 13.2 per 1,000 population
Southern counties.....	20,466 or 14.4 per 1,000 population

Distinguished as urban and rural there were the following:

Deaths in cities.....	14,577 or 43.2 per cent; death rate 15.5 per 1,000 population
Deaths in country	19,201 or 56.8 per cent; death rate 13.0 per 1,000 population

DEATHS BY MONTHS AND QUARTERS, 1900.

Table 9 shows the distribution of deaths in Michigan according to the months and quarters of the year 1900. The mortality of the year was much more evenly distributed through the months in 1900 than it was in 1899. While the maximum monthly rate was 20.9 per thousand population in 1899, the maximum rate for 1900 was only 17.1.

The largest number of deaths registered in any single month was for September, which had 3,369 deaths returned, corresponding to a death rate of 17.1 per thousand population. The month of least mortality was June, with only 2,326 deaths recorded, equivalent to a rate of 11.8 per thousand population. The average number of deaths per month was 2,815.

For convenience of comparison by months, it is useful to stand in the following

the comparative mortality which the average number of this method the months being September, 121;

April, 112; March, 109; February, 104; August, 104; October, 99; May, 98; January, 94; December, 94; November, 91; July, 90; and June, the minimum, 84. An interesting feature is shown in this table, viz., the comparison of the death rates of the months, as based on the final compilation of returns after all delinquent districts have reported, with the original rates as printed in the *Monthly Bulletins*.

Table 9.—Deaths in Michigan by months and quarters, 1900. (Stillbirths included.)

Year and months.	Number of deaths.		Average number per day.	Rank.	Death rate per 1,000 population.	Death rates as originally printed in <i>Bulletins</i> .	Increase for delayed returns.
	By months.	By quarters.					
Year 1900	33,778	33,778	.....	1,200	14.1	13.9	0.2
January	2,684	8,517	86.6	94	13.2	13.0	0.2
February	2,696		96.4	104	14.6	14.5	0.1
March	3,135		101.1	109	15.4	15.4	0.0
April	3,121	8,270	104.0	112	15.9	15.6	0.3
May	2,823		91.1	98	13.9	13.8	0.1
June	2,326		77.5	84	11.8	11.7	0.1
July	2,578	8,942	83.2	90	12.7	12.4	0.3
August	2,995		96.6	104	14.7	14.5	0.2
September	3,355		112.3	121	17.1	16.7	0.4
October	2,832	8,049	91.4	99	13.9	13.8	0.1
November	2,520		84.0	91	12.8	12.5	0.3
December	2,697		87.0	94	13.3	13.1	0.2
Average	2,815	8,445	92.5	100	.....	.....	.....

By referring to Table 10, it will be seen that the total number of deaths for the year recorded in the *Monthly Bulletins*, 33,320, was 458 less than the total number of deaths, 33,778, returned ultimately, and compiled in this registration report. Nevertheless, in the final report as compared with the original returns, there is but slight variation in the death rate for the year, although the monthly differences are somewhat more numerous than usual. They affect the decimal part of the rates only, and hence are well within the limit of accuracy of the statistics generally.

Table 10.—Delayed returns of deaths by months, 1900. (Stillbirths included.)

Deaths returned and published in—	Total deaths, 1900.	Months of death, 1900.											
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Annual Registration Report	33,778	2,684	2,700	3,133	3,125	2,822	2,324	2,579	2,994	3,371	2,829	2,523	2,694
Monthly Bulletins	33,320	2,636	2,673	3,133	3,046	2,804	2,293	2,509	2,954	3,319	2,817	2,461	2,675
Delayed returns	458	48	27	.....	79	18	31	70	40	52	12	62	19
.....	1.4	1.8	1.0	.....	2.5	0.6	1.3	2.7	1.3	1.5	0.4	2.5	0.7

MORTALITY OF THE SEXES IN MICHIGAN, 1900.

The distribution of deaths by sex during the year 1900 is shown in Table 11, together with a comparison with the estimated population of each sex, and also of the results of the preceding years, 1890-99, with the eleven-year average, 1890-1900.

Including stillbirths, there were 17,948 male decedents and 15,772 female decedents during the year. The respective death rates were 14.4 and 13.5 per thousand population. These death rates are strictly comparable only with those of the years 1898 and 1899, as the previous years, 1890-97, were collected under the very imperfect law that was then in effect. However, the relative number of males per one hundred deaths of females for the year, 113.8, is fully comparable with the corresponding ratios for the preceding years, and the relative male mortality shown in the last column of the table, 107 per cent, which is the ratio of the death rates of males to the death rates of the females taken as 100 per cent, is also correctly shown.

As usual, the male mortality is somewhat in excess of the female mortality, this being due in some degree to the inclusion of stillbirths in the returns, as there are always more males than females among stillbirths. For this reason more satisfactory comparisons can be made, and especially with reference to the very important item of age distribution by sexes, in Table 13.

Table 11.—Deaths and death rates in Michigan by sex, 1890-1900. (Stillbirths included.)

Year.	Population.		Number of deaths.		Rates per 1,000.		Deaths of males to 100 deaths of females.	Relative male mortality.†
	Males.	Females.	Males.	Females.	Males.	Females.		
1890*.....	1,091,780	1,002,109	11,801	9,771	10.8	9.8	120.7	110
1891.....	1,108,970	1,021,857	11,908	9,998	10.7	9.8	119.1	109
1892.....	1,126,160	1,041,605	11,837	9,809	10.5	9.4	120.7	112
1893.....	1,143,350	1,061,353	11,772	10,142	10.3	9.6	116.1	107
1894*.....	1,160,540	1,081,101	11,159	9,744	9.6	9.0	114.5	107
1895.....	1,177,730	1,100,849	12,161	10,510	10.3	9.5	115.7	108
1896.....	1,194,920	1,120,597	11,807	10,119	9.9	9.0	116.7	110
1897.....	1,212,110	1,140,345	10,294	8,829	8.5	7.7	116.6	110
1898.....	1,229,300	1,160,093	15,624	13,809	12.7	11.9	113.1	107
1899.....	1,246,490	1,179,841	18,025	15,605	14.5	13.2	115.5	110
1900*.....	1,248,905	1,172,077	17,948	15,772	14.4	13.5	113.8	107
Average, 1890-1900.	1,176,386	1,098,348	13,121	11,283	11.2	10.3	116.3	109

* Census years.

† Ratio of *death rates* (not deaths) of males to death rates of females. This comparison eliminates the unequal distribution of the sexes in the population.

DEATHS BY SEXES AND AGE PERIODS, 1900.

Table 12 shows the general distribution of the deaths returned for the year 1900, distinguishing the sexes and age periods of the decedents. *This table includes stillbirths* in the general total, although they are

excluded in the total under one year and in the total under five years. The relations of the number of deaths at each year under five and at quinquennial age periods up to the age of eighty years are given. Exclusive of stillbirths, 20.3 per cent of the deaths returned for the year were under one year of age. Stillbirths amounted to 3.9 per cent, and should be added to the preceding percentage for comparison with some former reports.

Table 12.—Deaths in Michigan, by sex and age periods, 1900. (Stillbirths included.)

Ages in years and periods of years.	Number of deaths, 1900.				Per cent of deaths at each age to total at all ages.			Per cent of deaths of each sex to total of both sexes.†				Excess of the sexes by number.		Males to 100 females.
	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Males.	Females.	Excess.		Males.	Females.	
										Males.	Females.			
All ages.....	33,778	17,948	15,772	58	100.0	100.0	100.0	53.2	46.8	6.4	.....	2,176	.....	.....
Stillbirths.....	1,325	737	540	48	3.9	4.1	3.4	57.6	42.3	15.3	.....	197	.....	136
Under 1 year *...	6,866	3,836	3,022	8	20.3	21.4	19.2	55.9	44.1	11.8	.....	814	.....	114
1 year.....	1,366	721	645	...	4.0	4.0	4.1	52.8	47.2	5.6	.....	76	.....	112
2 years.....	587	310	277	...	1.7	1.7	1.8	52.8	47.2	5.6	.....	33	.....	143
3 years.....	359	180	179	...	1.1	1.0	1.1	50.1	49.9	0.2	.....	1	.....	101
4 years.....	265	142	123	...	0.8	0.8	0.8	53.6	46.4	7.2	.....	19	.....	115
Under 5 years*.	9,443	5,189	4,246	8	28.0	28.9	26.9	55.0	45.0	10.0	.....	943	.....	122
5 to 9 years	944	498	446	...	2.8	2.8	2.8	52.8	47.2	5.6	.....	52	.....	190
10 to 14 years	654	326	328	...	1.9	1.8	2.1	49.8	50.2	.....	0.4	.....	2	99
15 to 19 years	1,026	517	509	...	3.0	2.9	3.2	50.4	49.6	0.8	.....	8	.....	102
20 to 24 years	1,306	631	675	...	3.9	3.5	4.3	48.3	51.7	.....	3.4	.....	44	93
25 to 29 years	1,318	586	732	...	3.9	3.3	4.6	44.5	55.5	.....	11.0	.....	146	80
30 to 34 years	1,144	516	628	...	3.4	2.9	4.0	45.1	54.9	.....	9.8	.....	112	82
35 to 39 years	1,130	533	597	...	3.3	3.0	3.8	47.2	52.8	.....	5.6	.....	64	89
40 to 44 years	1,123	589	534	...	3.3	3.3	3.4	52.4	47.6	4.8	.....	55	.....	110
45 to 49 years	1,124	587	537	...	3.3	3.3	3.4	52.2	47.8	4.4	.....	50	.....	109
50 to 54 years	1,250	670	580	...	3.7	3.7	3.7	53.6	46.4	7.2	.....	90	.....	116
55 to 59 years	1,419	793	626	...	4.2	4.4	4.0	55.9	44.1	11.8	.....	167	.....	127
60 to 64 years	1,604	868	736	...	4.7	4.8	4.7	54.1	45.9	8.2	.....	132	.....	118
65 to 69 years	1,947	1,047	900	...	5.8	5.8	5.7	53.8	46.2	7.6	.....	147	.....	116
70 to 74 years	2,167	1,211	956	...	6.4	6.7	6.1	55.9	44.1	11.8	.....	255	.....	127
75 to 79 years	2,063	1,142	921	...	6.1	6.4	5.8	55.4	44.6	10.8	.....	221	.....	124
80 years and over	2,703	1,439	1,264	...	8.0	8.0	8.0	53.2	46.8	6.4	.....	175	.....	114
Unknown ages ..	88	69	17	2	0.3	0.4	0.1	80.2	19.8	60.4	.....	52	.....	406

* Excluding stillbirths.

† Unknown sex excluded.

Under five years of age the percentage of deaths, exclusive of stillbirths, was 28.0. In other words, over one-fourth of the total deaths recorded for the year were those of children under five years of age. For males the percentage was somewhat higher and for females somewhat lower.

Comparisons of the percentage of deaths of males and females to the total number of deaths, exclusive of unknown sex, show that for most periods of age the percentage of males is the larger. Exceptions are for the years ten to fourteen and twenty to thirty-nine, the latter corresponding to the child-bearing age of females, during which the number

Table 13.—Deaths and death rates in Michigan, by age periods and sex, 1900. (Stillbirths excluded.)

Ages.	Population, U. S. census 1900.			Deaths, 1900.				Death rates per 1,000 population of same age and sex.			Relative male mortality. [†]
	Total.	Males.	Females.	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	
All ages.....	2,420,982	1,248,905	1,172,077	32,453	17,211	15,232	10	13.4	13.8	13.0	106
Under 1 year	54,161	27,459	26,702	6,806	3,836	3,022	8	126.8	139.7	113.2	123
1 year	50,262	25,457	24,805	1,366	721	645	....	27.2	28.3	26.0	109
2 years	50,660	25,762	24,907	587	310	277	....	11.6	12.0	11.1	108
3 years	53,107	26,759	26,348	359	180	179	....	6.8	6.7	6.8	99
4 years	52,459	26,480	25,979	265	142	123	....	5.1	5.4	4.7	115
Under 5 years....	260,658	131,917	128,741	9,443	5,189	4,246	8	36.2	39.3	33.0	119
5 to 9 years	264,059	133,899	130,160	944	498	446	....	3.6	3.7	3.4	109
10 to 14 years	247,617	124,919	122,698	654	326	328	....	2.6	2.6	2.7	96
15 to 19 years	233,141	116,393	116,748	1,026	517	509	....	4.4	4.4	4.4	100
20 to 24 years	222,412	111,649	110,763	1,306	631	675	....	5.9	5.7	6.1	93
25 to 29 years	198,186	101,450	96,736	1,318	586	732	....	6.7	5.8	7.6	76
30 to 34 years	178,410	92,666	85,744	1,144	516	628	....	6.4	5.6	7.3	76
35 to 39 years	165,061	87,153	77,908	1,130	533	597	....	6.8	6.1	7.7	79
40 to 44 years	147,729	79,177	68,552	1,123	589	534	....	7.6	7.4	7.5	95
45 to 49 years	122,248	65,924	56,324	1,124	587	537	....	9.2	8.9	9.5	93
50 to 54 years	104,210	56,288	47,922	1,250	670	580	....	12.0	11.9	12.1	98
55 to 59 years	88,680	45,311	40,369	1,419	793	626	....	16.6	17.5	15.5	113
60 to 64 years	66,885	35,156	31,729	1,604	868	736	....	24.0	24.7	23.2	106
65 to 69 years	51,133	27,136	23,997	1,947	947	900	....	38.1	38.6	37.5	103
70 to 74 years	34,087	18,269	15,818	311	156	155	....	63.8	66.3	63.4	110
75 to 79 years	21,115	11,434	9,681	51	26	25	....	2.4	2.3	2.5	105
80 years and over..	14,825	7,760	7,065	11	6	5	....	0.7	0.8	0.7	105
Unknown ages....	3,528	2	1	....	....	....	....	....	....	....	175

* Not including 196 deaths from stillbirths.

† Ratio of death rates of males to females.

of deaths recorded is greater than those of males. The percentage relations of male deaths to female deaths are also indicated in this table, but in common with the other figures given, the statements are not entirely satisfactory for some uses, owing to the fact that stillbirths are included and that the number of deaths and the percentage relations of the sexes are affected largely by the distribution of the population from which the deaths are derived.

In order to obviate some of these difficulties and to obtain a more satisfactory statement of the mortality of the sexes by ages, Table 13 has been prepared. This table shows the population for each sex and age, as returned by the United States census of 1900.

Table 14.—Death rates and ratios of deaths at certain periods of age, 1870-1900. (Still births excluded from both births and deaths.)

Years and periods.	Death rates per 1,000 population of corresponding age.						Percentages of deaths at each age to total deaths at all ages.					Deaths of infants under 1 year of age per 1,000 living births.
	All ages.	Under 1 year.	Under 5 years.	5 to 14.	15 to 64.	65 and over.	Under 1 year.	Under 5 years.	5 to 14.	15 to 64.	65 and over.	
1870.....	8.9	74.4	26.5	3.5	5.4	37.0	23.5	42.1	9.6	36.6	11.6	91.3
1871.....	7.7	58.3	21.2	2.9	4.8	36.9	21.2	38.7	9.3	38.1	14.0	75.6
1872.....	10.3	88.7	30.9	4.0	6.3	38.1	23.9	41.6	9.3	37.2	11.9	110.9
1873.....	10.6	92.4	31.7	4.4	6.5	41.2	23.9	40.9	9.9	37.2	12.0	96.0
1874.....	8.8	79.5	25.7	3.0	5.6	38.0	24.6	39.6	8.1	38.7	13.7	94.8
1875.....	8.1	71.2	23.3	2.6	5.1	34.6	24.2	39.1	7.8	39.1	14.0	85.5
1876.....	8.2	72.0	23.5	3.0	5.0	37.9	23.7	38.3	8.5	37.8	15.4	82.8
1877.....	8.1	66.9	23.0	3.2	5.0	37.1	22.1	37.5	9.2	37.8	15.4	81.1
1878.....	7.7	59.7	21.2	3.4	4.6	36.0	20.6	35.8	10.0	38.0	16.0	70.5
1879.....	8.6	67.5	24.3	4.3	5.0	38.5	20.8	36.7	11.7	36.0	15.7	84.1
1880.....	9.4	75.7	27.4	4.6	5.4	39.9	21.5	37.9	11.3	35.7	15.2	93.5
1881.....	11.0	91.7	33.8	6.1	6.1	41.3	21.7	39.0	12.6	34.7	13.7	116.4
1882.....	9.0	73.3	26.1	4.7	5.3	36.8	20.9	36.3	11.9	36.3	15.4	88.7
1883.....	9.0	74.5	25.8	3.8	5.5	37.7	21.1	35.5	9.7	38.5	16.3	83.0
1884.....	9.4	88.5	28.7	3.8	5.5	39.2	23.7	37.4	9.2	36.9	16.5	101.2
1885.....	8.4	72.9	23.6	3.2	5.2	37.6	21.6	34.1	8.6	39.1	18.2	81.2
1886.....	9.0	83.2	27.2	3.3	5.4	38.7	22.8	36.4	8.3	37.5	17.9	96.1
1887.....	9.5	86.1	28.4	3.4	5.7	41.4	22.1	35.5	8.1	37.9	18.5	(97.2) 89.3
1888.....	10.2	97.0	30.8	3.3	6.2	44.9	23.0	35.4	7.2	38.3	19.1	(103.4) 97.2
1889.....	9.3	84.5	27.6	3.2	5.8	40.4	21.7	34.3	7.6	39.1	19.1	(91.1) 84.9
1890.....	9.7	84.0	27.2	3.8	6.1	41.9	20.6	32.4	8.6	39.7	19.4	(89.7) 80.8
1891.....	9.9	86.3	26.9	3.3	6.1	46.0	21.3	32.0	7.5	39.3	21.2	(93.7) 87.8
1892.....	9.6	78.3	25.1	3.2	5.9	47.0	20.2	31.0	7.4	39.3	22.4	90.5
1893.....	9.5	80.8	25.0	3.1	5.9	46.8	21.1	31.1	7.2	39.1	22.4	93.2
1894.....	8.9	75.3	22.8	2.6	5.7	43.5	21.2	30.6	6.4	40.8	22.3	95.9
1895.....	9.5	78.0	23.2	2.5	6.2	50.9	20.6	29.1	5.7	41.0	24.2	97.9
1896.....	9.0	69.6	21.8	2.6	5.7	46.2	20.0	29.5	6.3	40.4	23.7	91.0
1897.....	8.1	61.9	18.9	2.4	5.2	45.1	19.6	28.1	6.3	40.3	25.3	86.6
1898.....	11.8	88.6	26.0	2.6	7.5	74.0	19.6	26.8	4.6	39.8	28.8	.....
1899.....	13.3	99.6	29.8	3.0	8.3	84.0	19.6	27.5	4.7	38.8	29.1	.....
1900.....	13.4	126.8	36.2	3.1	8.2	71.9	20.3	28.0	4.9	38.3	27.6	.....
1870-74.....	9.3	78.7	27.2	3.6	5.7	38.2	23.4	40.6	9.2	37.6	12.6	93.7
1875-79.....	8.1	67.5	23.1	3.3	4.9	36.8	22.3	37.5	9.4	37.7	15.3	80.8
1880-84.....	9.6	80.7	28.4	4.6	5.6	39.0	21.8	37.2	10.9	36.4	15.4	96.6
1885-89.....	9.3	84.7	27.5	3.3	5.7	40.6	22.2	35.1	8.0	38.4	18.6	(93.8) 89.7
1890-94.....	9.5	80.9	25.4	3.2	5.9	45.0	20.9	31.4	7.4	39.6	21.5	(92.6) 89.6
1895-99.....	10.3	79.5	23.9	2.6	6.6	60.0	19.9	28.2	5.5	40.1	26.2	.....
1870-99.....	9.4	78.7	25.9	3.4	5.7	43.3	21.8	35.0	8.4	38.3	18.3	.....

The numbers in parentheses in the last column represent the figures for infant mortality action, as far as possible, for fraudulent returns of births and deaths from Wayne county during the years 1887-91. See Report for 1892, p. 14. No comparison can be made of the accurately registered under the new law for the years 1898-1900 with the very imperfect data obtained under the very imperfect law of 1867, which has never been amended.

The total death rate for both sexes, 13.4 per thousand population, is based on the total population of the State for the year, although the deaths considered in this table do not include the 106 deaths from non-registration districts included in Table 2. Hence this rate does not compare exactly with the rates there given, and is used solely for the purpose of the present table in comparison with the death rates of the sexes.

Considered with reference to the sex distribution of the population, the death rate of males for the year, 13.8 per thousand, as compared with the death rate of females for the year, 13.0 per thousand, represents a relative male mortality of 106 per cent. Under one year of age, even after the exclusion of still births, the relative male mortality is higher, being 123 per cent, and is the maximum for all ages.

DEATH RATES AND PROPORTIONAL DEATHS BY AGE PERIODS, 1870-1900.

In Table 14 the death rates per thousand population of corresponding ages are given for the year 1900 for certain important age periods and may be compared with the results of the years 1898 and 1899 and also with the years 1870-97, as obtained under the old registration law. As the results under the old law were not as accurate as at present, only the general relations of the mortality at definite ages may be compared, except for the last three years of registration, 1898-1900. Considering these three years, we note that the death rate of infants under one year of age, per thousand estimated population of the same age, increased from 88.6 in 1898, to 99.6 in 1899 and to 126.8 in 1900. Unfortunately this ratio is a very unsatisfactory one from the fact that the census figures, upon which the estimate of the population at this period is based, are notoriously inaccurate. This is true of all censuses, so much so that it is the approved custom of statisticians to base their figures for infant mortality, not upon the population under one year of age, but upon the number of births in the same or in the preceding year. It is for this reason that it is very desirable to have an accurate registration of births, owing to the great sanitary importance of the correct statement of infant mortality. Michigan at present has no satisfactory law for this purpose, although it is hoped that efforts will soon be made in this direction. The last column given in this table showing the infant mortality as based on the returns of deaths of infants under one year of age and the very imperfect records of births as obtained under the old law for their enumeration by supervisors, is of very doubtful value. Since the registration of deaths, however, has greatly improved in accuracy, while the imperfections in the returns of births have remained unaltered, this important comparison has been made even more unsatisfactory than it formerly was, so that it is not worth while to attempt even to state the ratio between the deaths registered and the number of births enumerated for the year 1900.

Under five years of age the death rate increased from 26.0 in 1898 to 29.8 in 1899 and in 1900 there was a further increase to 36.2. The rates for deaths of children, aged five to fourteen years, also increased for the three years, being, respectively, 2.6, 3.0 and 3.1, and for adults, fifteen to sixty-four years of age, while there was an increase from 7.5 in 1898 to 8.3 in 1899, for 1900 the rate slightly decreased to 8.2 per thousand. The

death rate of the aged (sixty-five years and over) increased from 74.0 in 1898 to 84.0 in 1899 and decreased in 1900 to 71.9. Thus, although there was an increase for all ages from 1898 to 1899, in 1900 there was a large increase for the younger ages and a decrease for adults and the aged.

The second part of Table 14, showing the percentages of deaths at each age to the total deaths at all ages, has not the direct statistical value and importance of the preceding part, and is continued chiefly to show the general character of the returns for the year.

Somewhat over one-fourth of all deaths were those of children under five years of age, nearly one-fifth of the total number of deaths being those of infants under one year. About 40 per cent of the deaths occurred during the extensive age period, fifteen to sixty-four, which includes the most active period of life. The proportion of deaths of the aged, those over sixty-five years of age, was much higher than the average for the years 1898 to 1900. This ratio has been steadily increasing from the earlier years of registration, when it was only about one-third of its present size, until 1899. The ratio for 1900, 27.6, however, shows a decrease. These changes are due largely to the change in the age constitution of the State and throw an important light on the variations in the general death rate.

It may be said that in the second part of this table the ratios are comparable for the entire table, and not, as in the case of the death rates for the two years of accurate registration only.

DEATHS AND DEATH RATES, BY GEOGRAPHICAL SECTIONS, 1900.

It was shown in the discussion of a preceding table (Table 9) that the monthly death rates, as printed in the *Michigan Monthly Bulletins of Vital Statistics* during the year 1900, were practically correct, so far as the addition of delayed returns is concerned. As in the preceding report, so it seems desirable to present here for permanent preservation the tables showing the distribution of mortality through the State as recorded in these *Monthly Bulletins*, and hence Table 15 has been prepared for this purpose.

The geographical sections shown in this table were explained in the report for 1898 and illustrated by a map, and are the same that are referred to in the meteorological statistics given in subsequent pages of the present report.

In Table 15, besides the total death rates for the State, geographical sections and groups of cities, together with the townships and villages taken together under the designation "country," important ratios are given for the number of deaths returned of infants under one year of age, children aged one to four years, both inclusive, and elderly persons aged sixty-five years and over, for each month of the year. The table also shows the deaths returned and the death rates based thereon for certain of the most important diseases, including especially those dangerous communicable diseases that the State Board of Health is required by law to restrict.

Table 15.—Mortality in Michigan, by geographical sections and groups of cities.

Population by geographical sections and as urban and rural.	Total reporting population by State census of 1894.	Total deaths.	Annual death rates per 1,000 estimated population.	Still-births.	Important			
					Under 1.		1 to 4.	
					Num-ber.	Per cent.	Num-ber.	Per cent.
JANUARY.....	2,183,658	2,636	13.0	127	403	16.1	182	7.3
I.—UPPER PENINSULA.....	184,180	256	13.8	21	56	23.8	26	11.1
II.—NORTHERN COUNTIES.....	224,915	267	11.5	12	60	23.5	27	10.6
III.—CENTRAL COUNTIES.....	433,656	424	10.9	18	52	12.8	32	7.9
IV.—SOUTHERN COUNTIES.....	1,330,907	1,689	13.8	76	235	14.6	97	6.0
ALL CITIES.....	839,936	1,142	13.8	89	204	19.4	99	9.4
Over 50,000.....	317,236	483	14.5	49	95	21.9	47	10.8
25,000 to 50,000.....	74,685	77	12.0	5	11	15.3	8	11.1
10,000 to 25,000.....	197,039	243	13.1	17	32	14.2	21	9.3
5,000 to 10,000.....	148,839	210	14.2	13	47	23.9	17	8.6
Under 5,000.....	102,137	129	13.3	5	19	15.3	6	4.8
COUNTRY.....	1,343,722	1,494	12.4	38	199	13.7	83	5.7
FEBRUARY.....	2,185,105	2,673	14.5	97	445	17.3	210	8.2
I.—UPPER PENINSULA.....	184,999	258	15.3	13	67	27.3	39	15.9
II.—NORTHERN COUNTIES.....	233,786	286	13.6	8	69	24.8	34	12.2
III.—CENTRAL COUNTIES.....	430,039	505	14.5	18	75	15.4	42	8.6
IV.—SOUTHERN COUNTIES.....	1,336,281	1,624	14.6	58	224	14.9	95	6.1
ALL CITIES.....	839,936	1,145	15.2	57	222	20.4	99	8.3
Over 50,000.....	317,236	475	15.7	27	99	22.1	46	10.3
25,000 to 50,000.....	74,685	92	15.8	3	17	19.1	7	7.9
10,000 to 25,000.....	197,039	267	15.8	11	51	19.9	24	9.4
5,000 to 10,000.....	148,839	186	13.9	12	27	15.5	11	6.3
Under 5,000.....	102,137	125	14.2	4	28	23.1	2	1.7
COUNTRY.....	1,345,169	1,528	14.0	40	223	15.0	120	8.1
MARCH.....	2,190,143	3,133	15.4	133	503	16.8	251	8.4
I.—UPPER PENINSULA.....	185,145	290	15.6	20	71	26.3	40	14.8
II.—NORTHERN COUNTIES.....	233,580	346	14.9	15	95	28.7	36	10.9
III.—CENTRAL COUNTIES.....	432,449	557	14.4	20	96	17.9	36	6.7
IV.—SOUTHERN COUNTIES.....	1,338,969	1,940	15.8	78	241	12.9	139	7.5
ALL CITIES.....	840,816	1,330	16.1	84	209	16.8	142	11.4
Over 50,000.....	317,236	581	17.4	44	101	18.8	73	13.6
25,000 to 50,000.....	74,685	98	15.3	7	13	14.3	6	6.6
10,000 to 25,000.....	197,039	270	14.5	12	36	14.0	26	10.1
5,000 to 10,000.....	148,839	243	16.5	18	45	20.0	30	13.3
Under 5,000.....	103,017	138	14.2	3	14	10.4	7	5.2
COUNTRY.....	1,349,327	1,803	14.9	49	294	16.8	109	6.2
APRIL.....	2,176,424	3,046	15.6	126	522	17.9	235	8.0
I.—UPPER PENINSULA.....	181,068	288	16.3	15	84	30.8	41	15.0
II.—NORTHERN COUNTIES.....	233,427	315	14.1	10	80	26.2	30	9.8
III.—CENTRAL COUNTIES.....	430,009	492	13.2	30	88	19.0	40	8.7
IV.—SOUTHERN COUNTIES.....	1,331,920	1,951	16.5	71	270	14.4	124	6.6
ALL CITIES.....	840,816	1,361	17.0	85	260	20.4	99	7.8
Over 50,000.....	317,236	585	18.1	44	120	22.2	53	9.8
25,000 to 50,000.....	74,685	70	11.3	8	12	19.4	6	9.7
10,000 to 25,000.....	197,039	317	17.6	18	58	19.4	17	5.7
5,000 to 10,000.....	148,839	240	16.8	9	49	21.2	12	5.2
Under 5,000.....	103,017	149	15.9	6	21	14.7	11	7.7
COUNTRY.....	1,335,608	1,685	14.6	41	282	15.9	136	8.3

DEATHS.

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as originally published in the Michigan Monthly Bulletin of Vital Statistics, 1900.

ages.		Deaths and annual death rates per 100,000 population from important causes.									
65 and over.		Pulmonary consumption.		Other tuberculosis.		Typhoid fever.		Diphtheria.		Croup.	
Num-ber.	Per cent.	Num-ber.	Death rate.	Num-ber.	Death rate.	Num-ber.	Death rate.	Num-ber.	Death rate.	Num-ber.	Death rate.
775	30.9	154	75.8	43	21.2	53	26.1	52	26.6	19	9.3
26	11.1	23	124.0	6	32.4	6	32.4	12	64.7	3	16.2
56	22.0	18	77.2	3	12.9	6	25.7	5	21.5	2	8.6
119	29.3	23	59.3	8	20.6	12	31.0	9	23.2	3	7.7
574	35.6	90	73.6	26	21.3	29	23.7	26	21.3	11	9.0
239	22.7	56	67.6	23	27.8	24	29.0	31	37.4	7	8.5
78	18.0	22	65.9	7	21.0	5	15.0	14	41.9	3	9.0
20	27.8	4	62.5	3	46.9	2	31.3	3	46.9		
61	27.0	15	80.7	9	48.4	5	26.9	8	43.0		
40	20.3	11	74.5	3	20.3	9	61.0	4	27.1	4	27.1
40	32.3	4	41.3	1	10.3	3	31.0	2	20.7		
536	36.8	98	81.3	20	16.6	29	24.1	21	17.4	12	10.0
772	30.0	168	91.0	37	20.0	33	17.9	36	19.5	11	6.0
26	10.6	18	106.5	4	23.7	4	23.7	3	17.7	1	5.9
54	19.4	17	80.8	2	9.5	2	9.5	4	19.0	1	4.8
145	29.8	31	88.8	4	11.5	7	20.0	10	28.6	4	11.5
547	34.9	102	91.5	27	24.2	20	17.9	19	17.0	5	4.5
250	23.8	80	106.4	16	21.3	19	25.3	21	27.9	6	8.0
95	21.2	32	105.6	9	29.7	5	16.5	6	19.8	2	6.6
17	19.1	4	68.9			3	51.7	8	137.8	1	17.2
71	27.7	19	112.6	2	11.9	5	29.6	2	11.9	2	11.9
34	19.5	13	97.1	4	29.9	5	37.3	3	22.4	1	7.5
42	34.7	12	136.5	1	11.4	1	11.4	2	22.8		
513	34.5	88	80.4	21	19.2	14	12.8	15	13.7	5	4.6
872	29.1	182	89.3	63	30.9	30	14.7	20	9.8	18	8.8
29	10.7	17	91.2	10	53.6	1	5.4	6	32.2	2	10.7
55	16.6	21	90.6	1	4.3	2	8.6			2	8.6
146	27.6	29	75.0	12	31.0	8	20.7	2	5.2	4	10.3
640	34.4	115	93.5	40	32.5	19	15.4	12	9.8	10	8.1
281	23.4	84	101.4	35	42.2	17	20.5	15	18.1	7	8.4
125	23.3	33	98.9	15	44.9	7	21.0	6	18.0	1	3.0
21	23.1	5	78.2	1	15.6	2	31.3			1	15.6
58	20.5	23	123.7	7	37.7	3	16.1	4	21.5	3	16.1
46	21.3	13	81.3	10	67.8	2	13.6	5	33.9	1	6.8
44	23.6	11	112.9	2	20.5	3	30.8			1	10.3
582	23.1	96	81.0	28	23.1	13	10.7	5	4.1	11	9.1
888	29.6	163	83.2	55	28.1	21	10.7	26	13.3	7	3.6
29	11.7	14	79.4	4	22.7			3	17.0		
21.6		16	71.5	2	8.9	2	8.9	2	8.9	1	4.5
27.9		34	91.4	12	32.3	1	2.7	4	10.8	4	10.8
35.4		80	83.6	37	31.2	18	15.2	17	14.4	2	1.7
80		99	99.9	24	30.0	11	13.7	18	22.5	4	5.0
98		111	111.5	8	24.8	3	9.3	12	37.2	2	6.2
9		97	97.0	2	32.3					2	32.3
14		55.4		7	38.9	4	22.2	3	16.7		
18		33.4		2	14.0	3	21.0	3	21.0		
19		106.8		5	53.4	1	10.7				
88		71.7		31	26.8	10	8.6	8	6.9	3	2.6

Table 15.—Continued.—Mortality in Michigan, by geographical sections and groups of

Population by geographical sections and as urban and rural.	Deaths and annual death rates per 100,000 population from important causes.							
	Scarlet fever.		Measles.		Whooping cough.		Pneumonia.	
	Number.	Death rate.	Number.	Death rate.	Number.	Death rate.	Number.	Death rate.
JANUARY	21	10.3	32	15.7	15	7.4	310	152.5
I.—UPPER PENINSULA.....	3	16.2	3	16.2	3	16.2	26	140.2
II.—NORTHERN COUNTIES.....	6	25.7	5	21.5	1	4.3	28	120.2
III.—CENTRAL COUNTIES.....	5	12.9	4	10.3	2	5.2	55	141.9
IV.—SOUTHERN COUNTIES.....	7	5.7	20	16.4	9	7.4	201	164.3
ALL CITIES.....	3	3.6	16	19.3	6	7.2	144	173.9
Over 50,000.....	1	3.0	11	33.0	4	12.0	70	209.7
25,000 to 50,000.....			1	15.6			6	93.8
10,000 to 25,000.....			3	16.1	1	5.4	29	156.0
5,000 to 10,000.....	1	6.8	1	6.8	1	6.8	23	155.9
Under 5,000.....	1	10.3					16	165.2
COUNTRY.....	18	14.9	16	13.3	9	7.5	186	137.8
FEBRUARY.....	25	13.5	47	25.5	17	9.2	363	196.6
I.—UPPER PENINSULA.....	7	41.4	5	29.6	3	17.7	36	212.9
II.—NORTHERN COUNTIES.....	4	19.0	8	38.0	2	9.5	47	223.4
III.—CENTRAL COUNTIES.....	6	17.2	6	17.2	2	5.7	68	194.7
IV.—SOUTHERN COUNTIES.....	8	7.2	28	25.1	10	9.0	212	190.2
ALL CITIES.....	7	9.3	19	25.3	7	9.3	153	203.6
Over 50,000.....	4	13.2	15	49.5	1	3.3	60	198.0
25,000 to 50,000.....	2	34.5					13	223.9
10,000 to 25,000.....			4	23.7	5	29.6	38	225.2
5,000 to 10,000.....	1	7.5			1	7.5	26	194.1
Under 5,000.....							18	182.0
COUNTRY.....	18	16.4	28	25.6	10	9.1	210	191.8
MARCH.....	27	13.2	63	30.9	25	12.3	434	212.8
I.—UPPER PENINSULA.....	5	26.8	1	5.4	1	5.4	31	166.3
II.—NORTHERN COUNTIES.....	4	17.3	9	38.8	4	17.3	56	241.7
III.—CENTRAL COUNTIES.....	5	12.9	11	28.5	8	20.7	78	201.8
IV.—SOUTHERN COUNTIES.....	13	10.6	42	34.1	12	9.8	269	218.6
ALL CITIES.....	12	14.5	25	30.2	6	7.2	166	200.3
Over 50,000.....	4	12.0	18	53.9	2	6.0	76	227.7
25,000 to 50,000.....	2	31.3	1	15.6			11	172.0
10,000 to 25,000.....	2	10.8	2	10.8	4	21.5	35	188.3
5,000 to 10,000.....	1	6.8	3	20.3			24	162.7
Under 5,000.....	3	30.8	1	10.3			20	205.4
COUNTRY.....	15	12.4	38	31.4	19	15.7	268	221.4
APRIL.....	22	11.2	62	31.7	21	10.7	422	215.4
I.—UPPER PENINSULA.....	10	56.7	1	5.7	6	34.0	43	243.8
II.—NORTHERN COUNTIES.....	1	4.5	3	13.4			40	178.7
III.—CENTRAL COUNTIES.....	3	8.1	16	43.0	2	5.4	65	174.7
IV.—SOUTHERN COUNTIES.....	8	6.8	42	35.5	13	11.0	274	231.4
ALL CITIES.....	5	6.2	28	35.0	5	6.2	203	253.5
Over 50,000.....	1	3.1	15	46.5	2	6.2	106	328.3
25,000 to 50,000.....			1	16.2			7	113.2
10,000 to 25,000.....	3	16.7	4	22.2	3	16.7	48	267.0
5,000 to 10,000.....	1	7.0	2	14.0			27	189.2
Under 5,000.....			6	64.1			15	160.2
COUNTRY.....	17	14.7	34	28.4	16	13.8	219	189.1

cities, as originally published in the Michigan Monthly Bulletin of Vital Statistics, 1900.

Deaths and annual death rates per 100,000 population from important causes.

Diarrheal diseases under 5 years.		Cerebrospinal meningitis.		Influenza.		Puerperal septicemia.		Cancer.		Violence.	
Num-ber.	Death rate.	Num-ber.	Death rate.	Num-ber.	Death rate.	Num-ber.	Death rate.	Num-ber.	Death rate.	Num-ber.	Death rate.
58	28.5	40	19.7	55	27.1	5	2.5	128	63.0	131	64.4
7	37.7	6	32.4	5	27.0	.....	.....	5	27.0	17	91.7
10	42.9	7	30.0	3	12.9	.....	.....	11	47.2	18	77.2
8	20.6	5	12.9	11	28.4	.....	.....	15	38.7	22	56.7
33	27.0	22	18.0	36	29.4	5	4.1	97	79.3	74	60.5
28	33.8	15	18.1	20	24.2	4	4.8	52	62.8	56	67.6
14	41.9	5	15.0	5	15.0	3	9.0	18	53.9	22	65.9
2	31.3	2	31.3	1	15.6	.....	.....	4	62.5	1	15.6
4	21.5	3	16.1	1	5.4	.....	.....	14	75.3	16	86.1
7	47.4	5	33.9	8	54.2	1	6.8	7	47.4	12	81.3
1	10.3	.....	.....	5	51.6	.....	.....	9	92.9	5	51.6
30	24.9	25	20.7	35	29.0	1	0.8	76	63.1	75	62.2
51	27.6	36	19.5	61	33.0	19	10.3	104	56.3	111	60.1
11	65.1	6	35.5	.....	.....	2	11.8	7	41.4	30	177.4
6	28.5	4	19.0	10	47.5	1	4.8	8	38.0	11	52.3
12	34.4	11	31.5	10	28.6	1	2.9	19	54.4	13	37.2
22	19.7	15	13.5	41	36.8	15	13.5	70	62.8	57	51.1
24	31.9	20	26.6	23	30.6	10	13.3	42	55.9	46	61.2
7	23.1	8	26.4	11	36.3	5	16.5	17	56.1	15	49.5
2	34.5	2	34.5	1	17.2	.....	.....	4	68.9	2	34.5
9	53.3	7	41.5	4	23.7	3	17.8	12	71.1	10	59.3
5	37.3	2	14.9	5	37.3	1	7.5	6	44.8	14	104.5
1	11.4	1	11.4	2	22.8	1	11.4	3	34.1	5	56.9
27	24.7	16	14.6	38	34.7	9	8.2	62	56.6	65	59.4
67	32.9	55	27.0	102	50.0	40	19.6	109	53.5	123	60.3
10	53.6	8	42.9	3	16.1	6	32.2	8	42.9	28	150.2
13	56.1	4	17.3	13	56.1	6	25.9	7	30.2	16	69.1
8	20.7	14	36.2	29	75.0	7	18.1	16	41.4	27	69.8
36	29.3	29	23.6	57	46.3	21	17.1	78	63.4	52	42.3
28	33.8	27	32.6	25	30.2	19	22.9	53	64.0	48	57.9
12	36.0	10	30.0	6	18.0	9	27.0	25	74.9	11	33.0
1	15.6	2	31.3	6	53.8	.....	.....	3	46.9	7	109.4
2	10.8	10	53.8	4	21.5	6	32.3	16	86.1	9	48.4
11	74.6	3	20.3	5	33.9	2	13.6	5	33.9	15	88.1
2	20.5	2	20.5	4	41.1	2	20.5	4	41.1	8	82.1
39	32.2	28	23.1	77	63.6	21	17.3	56	46.3	75	62.0
70	35.7	35	17.9	108	55.1	23	11.7	131	66.9	154	78.6
12	68.0	.....	.....	5	28.4	5	28.4	9	51.0	21	119.1
14	62.5	3	13.4	9	40.2	1	4.5	12	53.6	17	75.9
13	34.9	7	18.8	13	34.0	4	10.8	23	61.8	26	69.9
31	26.2	25	21.1	81	68.4	13	11.0	87	73.5	90	76.0
30	37.5	16	20.0	39	48.7	9	11.2	58	72.4	72	89.9
12	37.2	12	37.2	12	37.2	5	15.5	21	65.0	24	74.3
6	33.4	3	16.7	8	44.5	1	5.6	4	64.7	5	80.3
11	77.1	1	7.0	13	91.1	3	21.0	14	77.9	20	111.2
1	10.7	.....	.....	6	64.1	.....	.....	5	53.4	9	98.1
40	34.5	19	16.4	69	59.6	14	12.1	73	63.0	82	70.1

Table 15.—Continued.—Mortality in Michigan, by geographical sections and groups of

Population by geographical sections and as urban and rural.	Total reporting population by State census of 1894.	Total deaths.	Annual death rates per 1,000 estimated population.	Still-births.	Important			
					Under 1.		1 to 4.	
					Num-ber.	Per cent.	Num-ber.	Per cent.
MAY.....	2,186,989	2,804	13.8	137	494	18.5	188	7.0
I.—UPPER PENINSULA.....	184,103	300	16.2	21	84	30.1	36	12.9
II.—NORTHERN COUNTIES.....	237,493	331	14.0	13	67	21.1	34	10.7
III.—CENTRAL COUNTIES.....	428,909	451	11.8	23	86	20.1	30	7.0
IV.—SOUTHERN COUNTIES.....	1,336,484	1,722	14.0	80	257	15.7	88	5.4
ALL CITIES.....	840,816	1,230	14.8	90	246	21.6	75	6.6
Over 50,000.....	317,236	517	15.5	45	120	25.4	31	6.6
25,000 to 50,000.....	74,685	76	11.9	7	12	17.4	6	8.7
10,000 to 25,000.....	197,039	231	12.4	10	41	18.6	17	7.7
5,000 to 10,000.....	148,839	253	17.1	20	52	22.3	11	4.7
Under 5,000.....	103,017	153	15.7	8	21	14.5	10	6.9
COUNTRY.....	1,346,173	1,574	13.0	47	248	16.2	113	7.4
JUNE.....	2,187,984	2,293	11.7	107	390	17.8	158	7.2
I.—UPPER PENINSULA.....	185,712	237	13.3	14	68	30.5	31	13.9
II.—NORTHERN COUNTIES.....	234,253	290	12.9	10	53	18.9	30	10.7
III.—CENTRAL COUNTIES.....	431,452	395	10.6	19	57	15.2	32	8.5
IV.—SOUTHERN COUNTIES.....	1,336,567	1,371	11.5	64	212	16.2	65	5.0
ALL CITIES.....	840,816	965	12.0	65	177	19.7	69	7.7
Over 50,000.....	317,236	391	12.1	40	94	26.8	24	6.8
25,000 to 50,000.....	74,685	67	10.8	3	9	14.1	7	10.9
10,000 to 25,000.....	197,039	221	12.3	11	29	13.8	16	7.6
5,000 to 10,000.....	148,839	184	12.9	7	31	17.5	20	11.3
Under 5,000.....	103,017	102	10.9	4	14	14.3	2	2.0
COUNTRY.....	1,347,168	1,328	11.4	42	213	16.6	89	6.9
JULY.....	2,170,762	2,509	12.4	126	561	23.5	141	5.9
I.—UPPER PENINSULA.....	186,273	273	14.6	17	86	33.6	20	7.8
II.—NORTHERN COUNTIES.....	234,398	261	11.2	9	53	21.0	27	10.7
III.—CENTRAL COUNTIES.....	421,635	370	9.8	20	69	19.7	13	3.7
IV.—SOUTHERN COUNTIES.....	1,328,456	1,605	13.1	80	353	23.1	81	5.3
ALL CITIES.....	840,816	1,211	14.6	76	333	29.3	63	5.6
Over 50,000.....	317,236	585	17.5	52	217	40.7	37	6.9
25,000 to 50,000.....	74,685	72	11.3	2	10	14.3	13	5.9
10,000 to 25,000.....	197,039	234	12.6	12	34	15.3	10	4.7
5,000 to 10,000.....	148,839	222	15.0	9	56	26.3	3	3.1
Under 5,000.....	103,017	98	10.1	1	16	16.5	3	6.3
COUNTRY.....	1,329,946	1,298	10.9	50	228	18.3	78	6.3
AUGUST.....	2,193,087	2,954	14.5	116	811	28.6	268	9.4
I.—UPPER PENINSULA.....	189,555	411	21.5	17	186	47.2	53	13.5
II.—NORTHERN COUNTIES.....	236,286	398	17.0	13	142	36.9	47	12.2
III.—CENTRAL COUNTIES.....	433,160	503	13.0	19	117	24.2	57	11.8
IV.—SOUTHERN COUNTIES.....	1,334,086	1,642	13.4	67	366	23.2	111	7.0
ALL CITIES.....	840,816	1,366	16.5	75	432	33.5	124	9.6
Over 50,000.....	317,236	524	15.7	41	159	32.9	44	9.1
25,000 to 50,000.....	74,685	84	13.1	6	25	32.1	7	9.0
10,000 to 25,000.....	197,039	317	17.1	14	102	33.7	31	10.2
5,000 to 10,000.....	148,839	292	19.8	11	91	32.4	34	12.1
Under 5,000.....	103,017	149	15.3	3	55	37.7	8	5.5
COUNTRY.....	1,352,271	1,588	13.1	41	379	24.5	144	9.3

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ages.		Deaths and annual death rates per 100,000 population from important causes.									
65 and over.		Pulmonary consumption.		Other tuberculosis.		Typhoid fever.		Diphtheria.		Croup.	
Num-ber.	Per cent.	Num-ber.	Death rate.	Num-ber.	Death rate.	Num-ber.	Death rate.	Num-ber.	Death rate.	Num-ber.	Death rate.
758	28.4	190	93.3	42	20.6	35	17.2	18	8.8	8	3.9
85	12.5	19	102.5	3	16.2	2	10.8	2	10.8	1	5.4
62	19.5	24	101.9	2	8.5	9	38.2	4	17.0	1	4.2
118	27.6	27	70.4	9	23.5	7	18.3	5	13.0	3	7.8
543	33.1	120	97.7	28	22.8	17	13.8	7	5.7	3	2.4
257	22.5	77	92.9	19	22.9	17	20.5	7	8.4	2	2.4
100	21.2	83	98.9	6	18.0	8	24.0	3	9.0	1	3.0
13	18.8	8	125.1	1	15.6	1	15.6	1	15.6	.....	.....
56	25.3	10	53.8	6	32.3	4	21.5	3	16.1	1	5.4
48	20.6	20	135.6	4	27.1	1	6.8	.....	.....	.....	.....
40	27.6	6	61.6	2	20.5	3	30.8	.....	.....	.....	.....
501	32.8	113	93.6	23	19.0	18	14.9	11	9.1	6	5.0
628	28.7	149	75.8	44	22.4	31	15.8	21	10.7	4	2.0
20	9.0	15	84.5	5	28.2	2	11.3	2	11.3	2	11.3
64	22.9	19	84.6	3	13.4	3	13.4	4	17.8	1	4.5
96	25.5	27	72.3	7	18.8	4	10.7	4	10.7	1	2.7
448	34.3	88	74.1	29	24.4	22	18.5	11	9.3	.....	.....
218	24.2	67	83.7	24	30.0	18	22.5	13	16.2	.....	.....
73	20.8	24	74.3	6	18.6	7	21.7	4	12.4	.....	.....
15	23.4	8	129.3	1	16.2	.....	.....	1	16.2	.....	.....
59	28.1	19	105.7	7	38.9	4	22.2	4	22.2	.....	.....
44	24.9	10	70.1	6	42.0	3	21.0	3	21.0	.....	.....
27	27.6	6	64.1	4	42.7	4	42.7	1	10.7	.....	.....
410	31.9	82	70.4	20	17.2	13	11.2	8	6.9	4	3.4
611	25.6	134	66.3	42	20.8	36	17.8	9	4.5	1	0.5
24	9.4	22	117.3	4	21.3	3	16.0	3	16.0	.....	.....
37	14.7	14	80.2	4	17.2	.....	.....	1	4.3	1	4.3
101	28.9	24	63.7	9	23.9	7	18.6	.....	.....	.....	.....
449	29.4	74	60.6	25	20.5	26	21.3	5	4.1	.....	.....
225	19.8	55	66.4	15	18.1	21	25.3	4	4.8	.....	.....
81	15.2	25	74.9	8	24.0	9	27.0	2	6.0	.....	.....
22	31.4	2	31.3	.....	.....	1	15.6	.....	.....	.....	.....
59	26.6	6	32.3	4	21.5	7	37.7	1	5.4	.....	.....
36	16.9	17	115.2	3	20.3	3	20.3	.....	.....	.....	.....
27	27.8	5	51.3	.....	.....	1	10.3	1	10.3	.....	.....
386	30.9	79	66.3	27	22.6	15	12.6	5	4.2	1	0.8
630	22.2	122	59.8	51	25.0	68	33.3	13	6.4	6	2.9
20	5.1	11	57.6	7	36.7	7	36.7	2	10.5	1	5.2
59	15.3	9	38.4	4	17.1	10	42.7	1	4.3	.....	.....
129	26.7	14	36.2	6	15.5	13	33.6	3	7.7	4	10.3
422	26.8	88	71.8	34	27.7	38	31.0	7	5.7	1	0.8
219	17.0	63	76.0	18	21.7	29	35.0	5	6.0	2	2.4
76	15.7	30	89.9	5	15.0	3	9.0	3	9.0	1	3.0
20	25.6	2	31.3	1	15.6	2	31.3	.....	.....	1	15.6
47	15.5	19	64.6	6	32.3	13	69.9	1	5.4	.....	.....
45	16.0	12	81.3	4	27.1	6	40.7	1	6.3	.....	.....
31	21.2	7	71.9	2	20.5	5	51.3	.....	.....	.....	.....
411	26.6	59	48.6	33	27.2	39	32.1	8	6.6	4	3.3

Table 15.—Continued.—Mortality in Michigan, by geographical sections and groups of

Population by geographical sections and as urban and rural.	Deaths and annual death rates per 100,000 population from important causes.							
	Scarlet fever.		Measles.		Whooping cough.		Pneumonia.	
	Num-ber.	Death rate.	Num-ber.	Death rate.	Num-ber.	Death rate.	Num-ber.	Death rate.
MAY.....	20	9.8	42	20.6	35	17.2	269	132.1
I.—UPPER PENINSULA.....	10	53.9	1	5.4	8	43.2	33	178.0
II.—NORTHERN COUNTIES.....	3	12.7	11	46.7	2	8.5	38	161.3
III.—CENTRAL COUNTIES.....	2	5.2	12	31.3	5	13.0	42	109.5
IV.—SOUTHERN COUNTIES.....	5	4.1	18	14.7	20	16.3	156	127.0
ALL CITIES.....	8	9.7	8	9.7	17	20.5	122	147.2
Over 50,000.....	2	6.0	1	3.0	19	30.0	58	173.8
25,000 to 50,000.....	1	15.6	.....	.....	.....	.....	8	125.1
10,000 to 25,000.....	1	5.4	2	10.8	3	16.1	18	96.8
5,000 to 10,000.....	4	27.1	2	13.6	2	13.6	24	162.7
Under 5,000.....	.....	.....	3	30.8	2	20.5	14	143.8
COUNTRY.....	12	9.9	34	28.2	18	14.9	147	121.7
JUNE.....	15	7.6	25	12.7	21	10.7	152	77.3
I.—UPPER PENINSULA.....	7	39.4	2	11.3	1	5.6	22	123.9
II.—NORTHERN COUNTIES.....	1	4.5	10	44.5	2	8.9	33	102.4
III.—CENTRAL COUNTIES.....	2	5.4	4	10.7	5	13.4	26	69.7
IV.—SOUTHERN COUNTIES.....	5	4.2	9	7.6	13	10.9	81	68.2
ALL CITIES.....	4	5.0	7	8.7	3	3.7	59	73.7
Over 50,000.....	1	3.1	2	6.2	1	3.1	21	65.0
25,000 to 50,000.....	.....	.....	1	16.2	1	16.2	5	80.8
10,000 to 25,000.....	2	11.1	2	11.1	.....	.....	14	77.9
5,000 to 10,000.....	1	7.0	2	14.0	.....	.....	13	91.1
Under 5,000.....	.....	.....	.....	.....	1	10.7	6	64.1
COUNTRY.....	11	9.4	18	15.4	18	15.4	93	79.8
JULY.....	18	8.9	14	6.9	28	13.9	84	41.6
I.—UPPER PENINSULA.....	6	32.0	1	5.3	5	26.7	6	32.0
II.—NORTHERN COUNTIES.....	4	17.2	4	17.2	2	8.6	9	38.7
III.—CENTRAL COUNTIES.....	3	8.0	3	8.0	13	34.5	13	34.5
IV.—SOUTHERN COUNTIES.....	5	4.1	6	4.9	8	6.6	56	45.9
ALL CITIES.....	9	10.9	1	1.2	9	10.9	49	59.1
Over 50,000.....	2	6.0	.....	.....	3	9.0	25	74.9
25,000 to 50,000.....	.....	.....	.....	.....	.....	.....	7	109.4
10,000 to 25,000.....	4	21.5	.....	.....	1	5.4	9	48.4
5,000 to 10,000.....	2	13.6	1	6.8	4	27.1	4	27.1
Under 5,000.....	1	10.3	.....	.....	1	10.3	4	41.1
COUNTRY.....	9	7.5	13	10.9	19	15.9	35	29.4
AUGUST.....	15	7.3	6	2.9	17	8.3	80	39.2
I.—UPPER PENINSULA.....	5	26.2	.....	.....	2	10.5	15	78.6
II.—NORTHERN COUNTIES.....	1	4.3	2	8.5	4	17.1	7	29.9
III.—CENTRAL COUNTIES.....	6	15.5	3	7.7	5	12.9	16	41.3
IV.—SOUTHERN COUNTIES.....	3	2.4	1	0.8	6	4.9	42	34.3
ALL CITIES.....	4	4.8	1	1.2	5	6.0	40	48.3
Over 50,000.....	.....	.....	.....	.....	4	12.0	13	38.9
25,000 to 50,000.....	.....	.....	1	15.6	.....	.....	2	31.3
10,000 to 25,000.....	2	10.8			1	5.4	11	59.2
5,000 to 10,000.....	1	6.8					9	61.0
Under 5,000.....	1	10.3					5	51.3
COUNTRY.....	11	9.1	5	4.1	12	9.9	40	33.9

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Deaths and annual death rates per 100,000 population from important causes.

Diarrheal diseases under 5 years.		Cerebrospinal meningitis.		Influenza.		Puerperal septicemia.		Cancer.		Violence.	
Num-ber.	Death rate.	Num-ber.	Death rate.	Num-ber.	Death rate.	Num-ber.	Death rate.	Num-ber.	Death rate.	Num-ber.	Death rate.
73	35.9	37	18.2	68	33.4	13	6.4	112	55.0	147	72.2
13	70.1	3	16.2	6	32.4	2	10.8	8	43.2	34	183.4
13	55.2	4	17.0	7	29.7	2	8.5	5	21.2	15	63.7
14	36.5	7	18.3	12	31.3	1	2.6	15	39.1	22	57.4
33	26.9	23	18.7	43	35.0	8	6.5	94	68.4	76	61.9
37	44.7	14	16.9	24	29.0	8	9.7	48	57.9	77	92.9
13	38.9	7	21.0	2	6.0	1	3.0	25	74.9	29	86.9
3	46.9							5	78.2	4	62.5
11	59.2	5	26.9	12	64.6	4	21.5	7	37.7	16	86.1
6	40.7	1	6.8	8	54.2	1	6.8	8	54.2	17	115.2
4	41.1	1	10.3	2	20.5	2	20.5	3	30.8	11	112.9
36	29.8	23	19.0	44	36.4	5	4.1	64	53.0	70	56.0
82	41.7	31	15.8	18	9.2	15	7.6	106	53.9	174	88.5
9	50.7	6	33.8	2	11.3			10	56.3	25	140.8
12	53.4	2	8.9	3	13.4	1	4.5	7	31.2	26	115.7
11	29.5	6	16.1	5	13.4	3	8.0	16	42.9	27	72.3
50	42.1	17	14.3	8	6.7	11	9.3	73	61.4	96	80.8
45	56.2	16	20.0	2	2.5	8	10.0	42	52.4	62	77.4
36	108.4	7	21.7			5	15.5	15	46.5	19	58.9
1	16.2	1	16.2					4	64.7	5	80.8
5	27.8	5	27.8	1	5.6			9	50.1	16	89.0
2	14.0	3	21.0	1	7.0	3	21.0	7	49.1	10	70.1
2	21.4							7	74.7	12	128.1
37	31.8	15	12.9	16	13.7	7	6.0	64	54.9	112	96.1
278	137.6	24	11.9	12	5.9	15	7.4	108	53.4	197	97.5
38	202.6	5	26.7	1	5.3	1	5.3	6	32.0	34	181.3
27	116.1	8	34.4	1	4.3	2	8.6	11	47.3	30	129.0
12	31.8			2	5.3	6	15.9	16	42.4	27	71.6
201	164.6	11	9.0	8	6.6	6	4.9	75	61.4	106	86.8
197	237.8	8	9.7	4	4.8	5	6.0	56	67.6	90	108.6
150	449.4	2	6.0			3	9.0	24	71.9	22	65.9
3	46.9					1	15.6	4	62.5	3	46.9
15	80.7	2	10.8					11	59.2	21	113.0
25	169.4	2	13.6	3	20.3	1	6.8	6	40.7	32	216.9
4	41.1	2	20.5	1	10.3			11	112.9	12	123.2
81	67.9	16	13.4	8	6.7	10	8.4	52	43.6	107	89.7
586	287.0	37	18.1	6	2.9	14	6.9	121	59.3	187	91.6
150	785.8	4	21.0			1	5.2	8	41.9	35	183.4
104	443.6	7	29.9	1	4.3	4	17.1	10	42.7	22	98.9
96	245.3	4	10.3	1	2.6	4	10.3	20	51.6	34	87.8
237	193.3	22	17.9	4	3.3	5	4.1	83	67.7	96	78.3
304	366.9	20	24.1	2	2.4	4	4.8	56	67.6	85	102.6
111	332.6	8	24.0			1	3.0	24	71.9	34	101.9
22	344.0							5	78.2	7	109.4
69	371.2	5	26.9					13	69.9	18	94.4
70	474.4	4	27.1	2	13.6	2	13.6	9	61.0	10	104.4
32	328.6	3	30.8			1	10.3	5	51.3	10	104.4
282	222.4	17	14.0	4	3.3	10	8.2	65	53.6	102	84.4

VITAL STATISTICS OF MICHIGAN, 1900.

Table 15.—Continued.—Mortality in Michigan, by geographical sections and groups of

Population by geographical sections and as urban and rural.	Total reporting population by State census of 1894.	Total deaths reported for 1900.	Annual death rates per 1,000 estimated population.	Still-births.	Important			
					Under 1..		1 to 4.	
					Num-ber.	Per-cent.	Num-ber.	Per-cent.
SEPTEMBER.....	2,202,396	3,319	16.7	123	1,020	31.9	352	11.0
I.—UPPER PENINSULA.....	189,934	413	22.3	16	190	47.9	51	12.8
II.—NORTHERN COUNTIES.....	238,206	436	19.1	14	188	44.5	56	13.3
III.—CENTRAL COUNTIES.....	431,771	610	16.3	20	216	36.6	67	11.4
IV.—SOUTHERN COUNTIES.....	1,342,485	1,860	15.6	73	426	23.8	178	10.9
ALL CITIES.....	840,816	1,321	16.5	76	390	31.3	108	8.7
Over 50,000.....	373,269	467	15.3	40	128	30.0	34	8.0
25,000 to 50,000.....	69,973	90	15.7	7	29	34.9	8	9.6
10,000 to 25,000.....	197,039	335	18.6	11	99	30.6	31	9.5
5,000 to 10,000.....	148,839	167	18.7	15	74	29.4	22	8.7
Under 5,000.....	103,017	162	17.3	3	60	37.7	13	8.2
COUNTRY.....	1,361,580	1,998	16.9	47	630	32.3	244	12.5
OCTOBER.....	2,188,741	2,817	13.8	131	622	23.2	234	8.7
I.—UPPER PENINSULA.....	185,136	262	14.1	22	76	31.7	31	12.9
II.—NORTHERN COUNTIES.....	236,916	346	14.7	14	97	29.2	37	11.1
III.—CENTRAL COUNTIES.....	431,683	539	14.0	17	129	24.7	52	10.0
IV.—SOUTHERN COUNTIES.....	1,335,006	1,670	13.6	78	320	20.1	114	7.2
ALL CITIES.....	840,816	1,140	13.8	78	252	23.7	96	9.0
Over 50,000.....	373,269	449	14.7	44	118	29.1	33	8.1
25,000 to 50,000.....	69,973	88	15.3	2	20	23.3	8	9.3
10,000 to 25,000.....	217,474	244	13.2	16	62	22.8	18	7.9
5,000 to 10,000.....	148,839	233	15.8	9	50	22.3	26	11.6
Under 5,000.....	103,017	126	12.9	7	12	10.1	11	9.2
COUNTRY.....	1,347,925	1,677	13.9	53	370	22.8	138	8.5
NOVEMBER.....	2,188,068	2,461	12.5	108	369	15.7	168	7.1
I.—UPPER PENINSULA.....	182,971	251	14.1	14	52	21.9	34	14.3
II.—NORTHERN COUNTIES.....	235,120	256	11.4	11	46	18.8	18	7.3
III.—CENTRAL COUNTIES.....	433,183	429	11.4	15	85	20.5	38	9.2
IV.—SOUTHERN COUNTIES.....	1,336,792	1,525	12.8	68	186	12.8	78	5.4
ALL CITIES.....	924,482	1,037	13.7	72	160	16.6	81	8.4
Over 50,000.....	373,269	414	13.5	35	72	19.0	33	8.7
25,000 to 50,000.....	69,973	87	15.2	4	17	20.5	9	10.8
10,000 to 25,000.....	217,474	236	13.2	18	23	10.6	21	9.6
5,000 to 10,000.....	167,408	182	13.3	13	31	18.3	14	8.3
Under 5,000.....	96,358	118	14.9	2	17	14.7	4	3.4
COUNTRY.....	1,347,252	1,407	12.0	34	206	15.0	87	6.3
DECEMBER.....	2,193,328	2,675	13.1	102	402	15.6	175	6.8
I.—UPPER PENINSULA.....	184,755	273	14.7	21	65	25.8	33	13.1
II.—NORTHERN COUNTIES.....	236,410	303	12.9	9	56	19.0	19	6.5
III.—CENTRAL COUNTIES.....	432,261	459	11.9	9	77	17.1	42	9.3
IV.—SOUTHERN COUNTIES.....	1,339,902	1,640	13.3	63	204	12.9	81	5.1
ALL CITIES.....	924,482	1,118	14.3	68	192	18.3	75	7.1
Over 50,000.....	373,269	476	15.0	33	97	21.9	34	7.7
25,000 to 50,000.....	69,973	100	16.9	5	14	14.7	11	11.0
10,000 to 25,000.....	217,474	231	12.5	14	32	14.7	11	5.1
5,000 to 10,000.....	167,408	210	14.8	12	34	17.2	15	7.6
Under 5,000.....	96,358	101	12.4	4	15	15.5	4	4.1
COUNTRY.....	1,352,512	1,541	12.7	33	206	13.7	100	6.6

DEATHS.

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cities, as originally published in the Michigan Monthly Bulletin of Vital Statistics, 1900.

ages.

Deaths and annual death rates per 100,000 population from important causes.

65 and over.		Pulmonary consumption.		Other tuberculosis.		Typhoid fever.		Diphtheria.		Croup.	
Num- ber.	Per cent.	Num- ber.	Death rate.	Num- ber.	Death rate.	Num- ber.	Death rate.	Num- ber.	Death rate.	Num- ber.	Death rate.
692	21.7	146	73.7	49	24.7	136	68.6	34	17.2	10	5.0
27	6.8	10	54.1	7	37.8	14	75.7	4	21.6	2	10.8
47	11.1	18	78.8	7	30.6	23	100.7	2	8.8	.....	.....
114	19.3	28	75.0	11	29.5	27	72.3	11	29.5	5	13.4
504	28.2	90	75.4	24	20.1	72	60.3	17	14.2	3	2.5
222	17.8	68	84.0	21	26.2	50	62.4	19	23.7	1	1.2
73	17.1	29	94.8	8	26.1	18	58.8	7	22.9	1	3.3
12	14.5	5	87.2	.....	.....	2	34.9	4	69.7	.....	.....
60	18.5	12	66.7	6	33.4	13	72.3	5	27.8	.....	.....
44	17.5	13	91.1	6	42.0	15	105.1	2	14.0	.....	.....
33	20.8	9	96.1	1	10.7	2	21.4	1	10.7	.....	.....
470	24.1	78	66.0	28	23.7	86	72.8	15	12.7	9	7.6
682	25.4	130	63.8	48	23.6	163	80.0	47	23.1	18	8.8
23	9.6	10	53.6	5	26.8	24	128.7	7	37.5	1	5.4
52	15.7	11	46.8	5	21.3	33	140.4	3	12.8	2	8.5
109	20.0	31	80.3	12	31.1	31	80.3	11	28.5	3	7.8
498	31.3	78	63.6	26	21.2	75	61.1	26	21.2	12	9.8
213	20.1	65	78.1	18	21.7	54	65.2	25	30.2	9	10.9
69	17.0	24	78.4	3	9.8	15	49.0	10	32.7	3	9.8
14	16.3	8	139.5	3	52.3	2	34.9	2	34.9	2	34.9
43	18.9	11	59.7	1	5.4	13	70.5	4	21.7	1	5.4
46	20.5	14	94.9	6	40.7	20	135.6	8	54.2	.....	.....
41	34.5	8	82.1	5	51.3	4	41.1	1	10.3	3	30.8
469	28.9	65	53.8	30	24.8	109	90.1	22	18.2	9	7.4
701	29.8	137	69.6	51	25.9	138	70.1	59	30.0	31	15.7
30	12.7	15	84.2	6	33.7	18	101.0	10	56.1	2	11.2
51	20.8	12	53.2	8	35.5	21	93.1	5	22.2	3	13.3
108	26.1	20	53.4	7	18.7	24	64.0	10	26.7	5	13.3
512	35.1	90	75.7	30	25.2	75	63.1	34	29.6	21	17.7
223	23.1	53	69.9	21	27.7	54	71.3	36	47.5	11	14.5
79	20.8	19	62.1	7	22.9	14	45.8	5	16.3	8	26.1
15	18.1	4	60.7	1	17.4	2	34.9	5	87.2	.....	.....
50	22.9	14	78.5	5	28.0	20	112.2	9	50.5	1	5.6
42	24.9	8	58.3	5	36.4	13	94.7	8	58.3	.....	.....
37	31.9	8	101.3	3	38.0	5	63.3	9	114.0	2	25.3
471	34.3	82	70.2	30	25.7	84	71.9	23	19.7	20	17.1
740	28.8	141	69.1	37	18.1	116	56.8	48	23.5	20	9.8
26	10.3	13	69.9	5	26.9	14	75.2	5	26.9	2	10.7
54	18.4	15	64.0	4	17.1	19	81.0	5	21.3	3	12.8
127	28.2	18	46.6	2	5.2	22	56.9	11	28.5	5	12.9
533	33.8	95	77.1	26	21.1	61	49.5	27	21.9	10	8.1
238	22.7	65	83.0	19	24.3	34	43.4	26	33.2	9	11.5
94	21.2	26	82.2	9	28.5	12	37.9	8	25.3	3	.....
24	25.3	2	33.7	.....	.....	4	67.5	3	50.6	1	.....
56	25.8	17	92.2	4	21.7	6	32.6	9	48.3	.....	.....
40	20.2	16	112.8	3	21.1	8	56.4	3	21.1	.....	.....
24	24.7	4	49.0	3	36.7	4	40.0	3	36.7	.....	.....
498	33.0	74	61.0	18	14.8	82	67.6	22	18.1	11	.....

Table 15.—Concluded.—Mortality in Michigan, by geographical sections and groups of

Population by geographical sections and as urban and rural.	Deaths and annual death rates per 100,000 population from important causes.							
	Scarlet fever.		Measles.		Whooping cough.		Pneumonia.	
	Num- ber.	Death rate.	Num- ber.	Death rate.	Num- ber.	Death rate.	Num- ber.	Death rate.
SEPTEMBER.....	17	8.6	2	1.0	9	4.5	83	41.9
I.—UPPER PENINSULA.....	6	32.4	.....	.....	1	5.4	11	59.5
II.—NORTHERN COUNTIES.....	2	8.8	.....	.....	2	8.8	16	70.0
III.—CENTRAL COUNTIES.....	2	5.4	.....	.....	2	5.4	16	42.8
IV.—SOUTHERN COUNTIES.....	7	5.9	2	1.7	4	3.4	40	33.5
ALL CITIES.....	10	12.5	2	2.5	2	2.5	30	37.5
Over 50,000.....	4	13.1	1	3.3	1	3.3	17	55.6
25,000 to 50,000.....	.....	.....	.....	.....	.....	.....	4	69.7
10,000 to 25,000.....	4	22.2	.....	.....	.....	.....	5	27.8
5,000 to 10,000.....	2	14.0	1	7.0	1	7.0	2	14.0
Under 5,000.....	.....	.....	.....	.....	.....	.....	2	21.4
COUNTRY.....	7	5.9	.....	.....	7	5.9	53	44.9
OCTOBER.....	26	12.8	4	2.0	3	1.5	137	67.2
I.—UPPER PENINSULA.....	9	48.3	.....	.....	1	5.4	17	91.2
II.—NORTHERN COUNTIES.....	1	4.3	1	4.3	.....	.....	11	46.8
III.—CENTRAL COUNTIES.....	9	23.3	2	5.2	.....	.....	24	62.2
IV.—SOUTHERN COUNTIES.....	7	5.7	1	0.8	2	1.6	85	69.3
ALL CITIES.....	9	10.9	.....	.....	.....	.....	64	77.2
Over 50,000.....	3	9.8	.....	.....	.....	.....	30	98.1
25,000 to 50,000.....	1	17.4	.....	.....	.....	.....	6	104.6
10,000 to 25,000.....	2	10.9	.....	.....	.....	.....	13	70.5
5,000 to 10,000.....	2	13.6	.....	.....	.....	.....	9	61.0
Under 5,000.....	1	10.3	.....	.....	.....	.....	6	61.6
COUNTRY.....	17	14.1	4	3.3	3	2.5	73	60.4
NOVEMBER.....	25	12.7	9	4.6	2	1.0	165	83.8
I.—UPPER PENINSULA.....	9	50.5	3	16.8	.....	.....	16	89.8
II.—NORTHERN COUNTIES.....	4	17.7	.....	.....	.....	.....	22	97.6
III.—CENTRAL COUNTIES.....	6	16.0	2	5.3	2	5.3	27	72.1
IV.—SOUTHERN COUNTIES.....	6	5.0	4	3.4	.....	.....	100	84.1
ALL CITIES.....	8	10.6	2	2.6	.....	.....	81	106.9
Over 50,000.....	1	3.3	.....	.....	.....	.....	45	147.1
25,000 to 50,000.....	2	34.9	.....	.....	.....	.....	8	139.5
10,000 to 25,000.....	4	22.4	2	11.2	.....	.....	13	72.9
5,000 to 10,000.....	.....	.....	.....	.....	.....	.....	10	72.9
Under 5,000.....	1	12.7	.....	.....	.....	.....	5	63.3
COUNTRY.....	17	14.5	7	6.0	.....	.....	83	71.0
DECEMBER.....	36	17.6	1	0.5	5	2.4	300	146.9
I.—UPPER PENINSULA.....	12	64.5	.....	.....	.....	.....	39	209.6
II.—NORTHERN COUNTIES.....	5	21.3	.....	.....	1	4.3	38	162.0
III.—CENTRAL COUNTIES.....	6	15.5	1	2.6	.....	.....	60	155.3
IV.—SOUTHERN COUNTIES.....	13	10.6	.....	.....	4	3.2	163	132.4
ALL CITIES.....	12	15.3	.....	.....	3	3.8	131	167.2
Over 50,000.....	1	3.2	.....	.....	2	6.3	50	158.1
25,000 to 50,000.....	2	33.7	.....	.....	.....	.....	19	320.4
10,000 to 25,000.....	4	21.7	.....	.....	.....	.....	22	119.4
5,000 to 10,000.....	5	35.2					29	204.4
Under 5,000.....					1	12.2	11	134.7
COUNTRY.....	24	19.8	1	0.8	2	1.6	183	139.3

DEATHS.

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cities, as originally published in the Michigan Monthly Bulletin of Vital Statistics, 1900.

Deaths and annual death rates per 100,000 population from important causes.

Diarrheal diseases under 5 years.		Cerebrospinal meningitis.		Influenza.		Puerperal septicemia.		Cancer.		Violence.	
Num-ber.	Death rate.	Num-ber.	Death rate.	Num-ber.	Death rate.	Num-ber.	Death rate.	Num-ber.	Death rate.	Num-ber.	Death rate.
701	399.1	35	17.7	10	5.0	10	5.0	124	62.6	129	65.1
149	805.4	4	21.6					12	64.9	27	145.9
156	678.5	4	17.5	2	8.8	4	17.5	5	21.9	11	48.2
175	468.6	8	21.4			1	2.7	18	48.2	13	34.8
312	261.4	19	15.9	8	6.7	5	4.2	89	74.6	78	65.4
248	309.7	14	17.5	2	2.5	6	7.5	54	67.4	64	79.9
54	176.5	3	9.8			3	9.8	20	65.4	26	85.0
17	296.4	4	69.7					1	17.4		
82	456.1	1	5.6			1	5.6	14	77.9	18	100.1
54	378.4	4	28.0	2	14.0	2	14.0	13	91.1	14	98.1
41	437.8	2	21.4					6	64.1	6	64.1
543	459.7	21	17.8	8	6.8	4	3.4	70	59.3	65	55.0
353	173.2	34	16.7	7	3.4	12	5.9	111	51.5	145	71.2
29	155.6	3	16.1					2	10.7	17	91.2
68	280.3	2	8.5	1	4.3	2	8.5	8	34.0	22	93.6
96	253.9	10	25.9	1	2.6	5	13.0	16	41.5	20	51.8
158	128.8	19	15.5	5	4.1	5	4.1	85	69.3	86	70.1
102	123.1	16	19.3	3	3.6	2	2.4	47	56.7	68	82.1
38	124.2	6	19.6					23	75.2	18	58.8
7	122.1	2	34.9			1	17.4	6	104.6	3	52.3
23	124.8	3	16.3	2	10.9	1	5.4	8	43.4	19	103.1
22	149.1	4	27.1	1	6.8			7	47.4	19	128.8
12	123.2	1	10.3					3	30.8	9	92.4
251	207.6	18	14.9	4	3.3	10	8.3	64	52.9	77	63.7
80	40.6	17	8.6	13	6.6	12	6.1	125	63.5	111	56.4
7	39.3	1	5.6					4	22.4	29	162.7
13	57.7	1	4.4			1	4.4	7	31.0	14	62.1
16	42.7	5	13.3	3	8.0	2	5.3	25	66.7	16	42.7
44	37.0	10	8.4	10	8.4	9	7.6	89	74.9	52	43.8
33	43.5	6	7.9	5	6.6	3	4.0	57	75.2	47	62.0
12	39.2	4	13.1			1	3.3	28	91.5	16	52.3
1	17.4	2	34.9					4	69.7	5	87.2
6	33.7			1	5.6	2	11.2	11	61.7	7	39.3
9	65.6			4	29.2			7	51.0	15	109.3
5	63.3							7	88.6	4	50.6
47	40.2	11	9.4	7	6.0	9	7.7	67	57.3	63	53.9
35	17.1	21	10.3	30	14.7	12	5.9	127	62.2	147	72.0
7	37.6	3	16.1			1	5.4	7	37.6	20	107.5
1	4.3	3	12.8	2	8.5	3	12.8	9	38.4	24	102.3
9	23.3	5	12.9	5	12.9	2	5.2	19	40.2	28	72.5
18	14.6	10	8.1	23	18.7	6	4.9	92	74.7	75	60.9
12	15.3	15	19.1	12	15.3	6	7.7	51	65.1	65	83.0
7	22.1	7	22.1	8	25.3	3	9.5	27	85.4	25	79.0
1	16.9	2	33.7	1	16.9			4	67.5	4	67.5
		1	5.4	1	5.4	1	5.4	9	48.8	13	70.5
2	14.1	3	21.1	2	14.1	1	7.0	9	63.4	16	112.6
2	24.5	2	24.5			1	12.2	2	24.5	7	85.7
23	19.0	6	4.9	18	14.8	6	4.9	74	61.0	81	66.8

DEATHS IN CITIES OF MICHIGAN, 1900.

Table 16 shows the number of deaths reported for 1900 from each city of the State, together with the population as given by the United States census of 1900. The total urban population of the State, including in this designation such small towns as Gladwin, 775, Harrison, 645, Mackinac Island, 665, and North Muskegon, 530, places which have few of the requisites of a city except the possession of a city charter, is 943,184, and the total number of deaths returned from these cities for the year was 14,577. The death rate was 15.5 per thousand which may be compared with the rural death rate of 13.0. It should be remembered, in making comparisons with the results of the United States census, that the limit used by the latter for inclusion in the list of cities is 8,000 population, and hence that the list of cities under 5,000 population in the State entirely disappears from consideration.

Table 16.—Cities of Michigan, grouped in order of population, by U. S. census of 1900, with deaths and death rates per 1,000 population, 1900. (Stillbirths included.)

Cities.	Population by U. S. census of 1900.	Deaths returned 1900.	Death rate per 1,000 population.	Cities.	Population by U. S. census of 1900.	Deaths returned 1900.	Death rate per 1,000 population.
ALL CITIES.....	943,184	14,577	15.5	Mt. Clemens.....	6,576	128	19.5
CITIES OVER 50,000 POPULATION.....	373,269	5,979	16.0	Negaunee.....	6,935	132	19.0
Detroit.....	285,704	4,711	16.5	Owosso.....	8,696	110	12.6
Grand Rapids.....	87,665	1,268	14.5	Petoskey.....	5,285	71	13.4
CITIES FROM 25,000 TO 50,000 POPULATION..	95,153	1,334	14.0	Pontiac.....	9,769	154	15.8
Bay City.....	27,028	382	13.8	St. Joseph.....	5,155	53	10.3
Jackson.....	25,180	327	13.0	Traverse City.....	9,407	145	15.4
Saginaw.....	42,345	625	14.8	Wyandotte.....	5,183	90	17.4
CITIES FROM 10,000 TO 25,000 POPULATION..	212,890	3,301	15.5	Ypsilanti.....	7,378	95	12.9
Alpena.....	11,802	207	17.5	CITIES UNDER 5,000 POPULATION.....	108,866	1,596	14.7
Ann Arbor.....	14,509	198	13.6	Albion.....	4,519	65	14.4
Battle Creek.....	18,563	271	14.6	Au Sable.....	1,116	14	12.5
Flint.....	13,103	154	11.8	Belding.....	3,282	45	13.7
Ishpeming.....	13,255	193	14.6	Bessemer.....	3,911	71	18.2
Kalamazoo.....	24,404	402	18.9	Big Rapids.....	4,686	88	18.8
Lansing.....	16,485	239	14.5	Charlotte.....	4,092	68	16.6
Manistee.....	14,200	170	11.9	Clare.....	1,324	18	13.6
Marquette.....	10,058	205	20.4	Corunna.....	1,510	20	13.2
Menominee.....	12,818	189	14.7	Crystal Falls.....	3,231	25	7.7
Muskegon.....	20,818	292	14.0	Dowagiac.....	4,151	77	18.5
Port Huron.....	19,158	282	14.7	East Tawas.....	1,736	13	7.5
Sault Ste. Marie.....	10,538	220	20.9	Eaton Rapids.....	2,103	34	16.2
West Bay City.....	13,119	219	16.7	Gladstone.....	3,380	43	12.7
CITIES FROM 5,000 TO 10,000 POPULATION..	153,006	2,367	15.5	Gladwin.....	775	7	9.0
Adrian.....	9,654	159	16.5	Grand Haven.....	4,743	51	10.8
Benton Harbor.....	6,562	73	11.1	Grand Ledge.....	2,161	22	10.2
Cadillac.....	5,997	84	14.0	Greenville.....	3,381	54	16.0
Cheboygan.....	6,489	67	10.3	Harrison.....	647	16	24.7
Coldwater.....	6,216	94	15.1	Hastings.....	3,172	27	8.5
Escanaba.....	9,549	217	22.7	Hillsdale.....	4,151	60	14.5
Holland.....	7,790	124	15.9	Hudson.....	2,403	39	16.2
Irona.....	5,209	68	13.1	Lapeer.....	3,297	54	16.4
Iron Mountain.....	9,242	143	15.5	Mackinac Island.....	665	12	18.0
Ironwood.....	9,705	170	17.5	Manistiquie.....	4,126	78	18.9
Ludington.....	7,166	118	16.5	Marine City.....	3,829	77	20.1
Monroe.....	5,043	72	14.3	Marshall.....	4,370	42	9.6
				Mason.....	1,828	35	19.1
				Midland.....	2,303	34	14.4
				Mt. Pleasant.....	3,602	41	11.2
				Niles.....	4,287	62	14.5
				North Muskegon.....	513	10	19.5
				Norway.....	4,170	68	16.3
				St. Clair.....	2,543	34	13.4
				St. Ignace.....	2,271	28	12.3
				St. Louis.....	1,989	34	17.1
				Stanton.....	1,234	26	21.1
				Sturgis.....	2,465	32	13.0
				Tawas City.....	1,228	13	10.6
				Three Rivers.....	3,550	59	16.6

The group of cities over 50,000 population consists of only two, Detroit with a death rate of 16.5, and Grand Rapids with a death rate of 14.5 for the year. Cities from 25,000 to 50,000, which list has been increased since the last census by the addition of Jackson, show the lowest recorded mortality in the State, being 14.0 per thousand population.

The group of cities from 10,000 to 25,000 population has a rate of 15.5 per thousand, Sault Ste. Marie having the highest, 20.9 per thousand, and Flint the lowest, 11.8 per thousand. Two of the cities in this list, Alpena and Manistee, were rejected by the United States census authorities, owing to the belief that their registration returns were not sufficiently accurate to be included.

The cities from 5,000 to 10,000 population show a death rate of 15.5, which is the same as the average for the cities of the State. The maximum death rate in this group, 22.7 per thousand, is that of the city of Escanaba, and the minimum mortality belongs to Cheboygan and St. Joseph, which each have a rate of 10.3 per thousand.

Cities under 5,000 population, which are hardly included in the class of cities as usually studied in registration reports, show a lower mortality, 14.7, than the preceding group. There are, moreover, greater variations in the rates for the individual cities. Stanton shows a rate of 21.1 per thousand and East Tawas a rate of only 7.5 per thousand. Harrison, which shows the highest rate, 24.7 per thousand, has a population so small that even an annual rate has little significance.

SECTION II.—CAUSES OF DEATH IN MICHIGAN DURING THE YEAR 1900.

The most important part of a registration report consists of the statistics relating especially to individual causes of death, because, without a knowledge of the prevalence of different diseases, intelligent efforts cannot be made for their restriction and prevention on the part of sanitary authorities; or, if such efforts are made, it cannot be definitely known with what measure of success or failure they have been attended. Accurate vital statistics are considered absolutely essential instruments of modern sanitary progress, and no class of information collected under this head is of such paramount importance as the knowledge of the mortality from individual diseases and groups of diseases.

A tabular exhibition of the deaths and death rates from each cause of death in Michigan for the year 1900 according to the extended form of the Bertillon classification may be found in Table 17, and a condensed list, showing the mortality by the geographical sections of the State for the months of the year and also for the various age periods is given in Table 18. The primary data from which these tables, as well as all of the tables and diagrams illustrating individual diseases, are derived,

may be found in Table III, p. 20, Table IV, p. 40. The list numbers used in these primary tables are the same as those employed in the exposition of the Bertillon classification contained in the Appendix of the registration report for 1898, to which reference may be made under each title. The revision of this classification made at Paris in 1900 will not, of course, be put into use until applied to the statistics of the year 1901.

Examination of the deaths recorded in Table 17 will show that many of the causes are quite insignificant as regards number, and that very little sacrifice of statistical completeness would be made by their entire omission or rather inclusion under some more general title. It will also be much more convenient to study an abbreviated list, as the various relations of the mortality in the geographical sections can thus be shown without an undue sacrifice of space. While the number of titles should be abbreviated, the general outline of the classification in its extended form should be scrupulously preserved, so that comparisons may be accurately made. This cannot be done when certain diseases are left out of their proper positions by being relegated to the unclassified list at the end of the table, as the proportion of the preceding groups is thereby destroyed. Hence Table 18 was devised for the purpose of showing the general relations of the causes of death in the State during the year in a correct manner, but greatly abridged from the longer classification.

CAUSES OF DEATH.

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Table 17.—Deaths in Michigan during the year 1900, statistically classified by the Bertillon system, with rates per 100,000 population.

Classification number.	Causes of death.	Number of deaths.	Death rates per 100,000.
	ALL CAUSES*.....	33,778	1407.9
	<i>Stillbirths.....</i>	<i>1,325</i>	<i>55.2</i>
	GENERAL DISEASES.		
	I. EPIDEMIC DISEASES.....	2,757	114.9
1	Typhoid fever.....	824	34.3
1a	Typho-malarial fever.....	45	1.9
2	Typhus fever.....	1	0.0
3	Scurvy.....	13	0.5
4	Smallpox.....	9	0.4
5	Measles.....	342	14.3
6	Scarlet fever.....	272	11.3
7	Whooping cough.....	208	8.7
8a	Diphtheria.....	389	16.2
8b	Membranous croup.....	86	3.6
8c	Croup.....	54	2.3
9	Influenza.....	500	20.8
10	Miliary fever.....		
11	Asiatic cholera.....		
12	Cholera nostras.....	8	0.3
13	Other epidemic diseases.....	6	0.3
	II. OTHER GENERAL DISEASES.....	5,137	214.1
14	Pyemia and septicemia.....	142	5.9
15	Glanders and farcy.....		
16	Malignant pustule.....		
17	Rabies.....	2	0.1
18	Relapsing fever.....		
19-20	Malaria.....	172	7.2
21	Pellagra.....		
	Tuberculosis.....	2,478	103.3
22a	Lungs.....	2,018	84.1
22b	Meninges.....	136	5.7
22c	Peritoneum.....	129	5.4
22d	Skin.....	6	0.3
22e	Other organs.....	56	2.3
22f	General.....	133	5.5
23	Scrofula.....	22	0.9
24	Syphilis.....	49	2.0
	Cancer.....	1,460	60.9
25a	Mouth.....	55	2.3
25b	Stomach or liver.....	566	23.6
25c	Intestines or rectum.....	137	5.7
25d	Uterus.....	201	8.4
25e	Breast.....	134	5.6
25f	Skin.....	82	3.4
25g	Other organs.....	285	11.9
26-27	Rheumatism.....	243	10.1
28	Diabetes.....	224	9.3
29	Exophthalmic goitre.....	17	0.7
30	Addison's disease.....	15	0.6
31	Leukemia.....	35	1.5
32	Anemia, chlorosis.....	180	7.5
33	Other general diseases.....	7	0.3
34	Alcoholism.....	71	3.0
35-37	Chronic poisoning.....	20	0.8
	LOCAL DISEASES.		
	III. DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SENSE.	4,056	169.1
38	Encephalitis.....	96	4.0
39a	Simple meningitis.....	514	21.4
39b	Cerebrospinal meningitis.....		
42	Apoplexy.....	1,259	52.5
43	Cerebral softening.....	89	3.7
44	Paralysis.....	788	32.8
45	General paralysis of insane.....	127	5.3
46	Other forms of insanity.....	65	2.7
47	Epilepsy.....	139	5.8
48	Convulsions.....	23	1.0

* Including stillbirths.

Table 17.—Continued.—Deaths in Michigan during the year 1900, statistically classified.

Classification number.	Causes of death.	Number of deaths.	Death rates per 100,000.
49	Convulsions of infants.....	519	21.6
50	Tetanus.....	19	0.8
40-41 51-54 }	Other nervous diseases.....	418	17.4
	IV. DISEASES OF THE CIRCULATORY SYSTEM.....	3,059	127.5
55	Pericarditis.....	99	4.1
56	Endocarditis.....	102	4.3
57	Organic heart disease.....	2,472	103.0
58	Angina pectoris.....	163	6.8
59	Diseases of the arteries.....	98	4.1
60	Embolism.....	42	1.8
61	Varices, hemorrhoids.....	2	0.1
62	Phlebitis.....	14	0.6
63	Lymphangitis.....	3	0.1
64	Other lymphatic diseases.....	6	0.3
65	Hemorrhage.....	42	1.8
66	Other circulatory diseases.....	16	0.7
	V. DISEASES OF THE RESPIRATORY SYSTEM.....	3,877	161.6
67	Diseases of the nose.....	5	0.2
68	Diseases of the larynx and thyroid.....	57	2.4
69	Acute bronchitis.....	497	20.7
70	Chronic bronchitis.....	305	12.7
71	Broncho-pneumonia.....	353	14.7
72	Pneumonia.....	2,035	84.8
73	Pleurisy.....	159	6.6
74	Congestion of the lungs.....	191	8.0
75	Gangrene of the lungs.....	6	0.3
76	Asthma and emphysema.....	144	6.0
77	Other respiratory diseases.....	125	5.2
	VI. DISEASES OF THE DIGESTIVE SYSTEM.....	5,478	228.3
78	Diseases of the mouth.....	42	1.8
79	Disease of the pharynx and esophagus.....	53	2.2
80	Ulcer of the stomach.....	68	2.8
81	Other diseases of the stomach.....	582	24.3
82	Cholera infantum.....	2,503	104.3
83	Diarrhea and enteritis.....	446	18.6
84	Dysentery.....	254	10.6
85, 86	Hernia and intestinal obstruction.....	243	10.1
87	Other diseases of the intestines.....	115	4.8
88	Acute yellow atrophy of the liver.....	8	0.3
89, 90	Cirrhosis of the liver.....	190	7.9
91, 92	Other diseases of the liver.....	396	16.5
93	Peritonitis.....	343	14.3
94	Other diseases of the digestive system.....	14	0.6
95	Iliac abscess.....	221	9.2
	VII. DISEASES OF THE GENITO-URINARY SYSTEM.....	1,562	65.1
96	Acute nephritis.....	209	8.7
97	Bright's disease.....	852	35.5
98-100	Other diseases of the kidneys.....	111	4.6
101	Vesical calculi.....	4	0.2
102	Diseases of the bladder.....	170	7.1
103-106	Diseases of the male genital organs.....	58	2.4
107, 108	Uterine tumor.....	31	1.3
109, 110, 112	Other uterine diseases.....	23	1.0
111	Ovarian tumor.....	36	1.5
113	Other diseases of the female genital organs.....	68	2.8
114, 115 }			
	VIII. PUERPERAL DISEASES.....	452	18.8
116-118	Accidents of pregnancy.....	118	4.9
119, 120-122	Puerperal septicemia.....	249	10.4
121	Puerperal albuminuria.....	85	3.5
	IX. DISEASES OF THE SKIN AND CELLULAR TISSUE.....	296	12.3
125	Erysipelas.....	102	4.3
126	Gangrene.....	104	4.3
127	Anthrax.....		
128	Phlegmon, acute abscess.....	63	2.6
129	Other diseases of the skin.....	27	1.1

Table 17.—Concluded.—Deaths in Michigan during the year 1900, statistically classified.

Classifi- cation number.	Causes of death.	Number of deaths.	Death rates per 100,000.
	X. DISEASES OF THE LOCOMOTOR SYSTEM.....	57	2.4
130	Pott's disease.....	12	0.5
131	Chronic or cold abscess.....	2	0.1
133	White swelling.....	43	1.8
132, } 134-136 }	Other diseases of the locomotor system.....		
	XI. MALFORMATIONS.....	206	8.6
137	Malformations.....	206	8.6
	XII. DISEASES OF INFANCY.....	1,441	60.1
138a	Congenital debility.....	784	32.7
138b	Premature birth.....	620	25.8
139	Want of care.....	37	1.5
140	Other diseases of infancy.....		
	XIII. DISEASES OF OLD AGE.....	674	28.1
141	Senile debility.....	674	28.1
	XIV. VIOLENCE.....	1,966	81.9
	<i>A. Suicides.....</i>	<i>211</i>	<i>8.8</i>
142a	Poison.....	57	2.4
142b	Asphyxia.....	1	0.0
142c	Strangulation.....	58	2.4
142d	Drowning.....	13	0.5
142e	Firearms.....	54	2.3
142f	Cutting instruments.....	11	0.5
142g	Fall from height.....		
142h	Crushing.....		
142i	Other methods.....	17	0.7
	<i>B. Accidents.....</i>	<i>1,740</i>	<i>72.5</i>
143	Fractures.....	200	8.3
144	Dislocation.....	19	0.8
145a	Gunshot.....	62	2.6
145b	Lightning.....	22	0.9
145c	Mining accidents.....	72	3.0
145d	Railroad accidents.....	218	9.1
145e	Vehicles and horses.....	61	2.5
145f	Electric railway.....	20	0.8
146a	Fire (burn).....	111	4.6
146b	Hot liquid (scald).....	23	1.0
146c	Corrosive substance.....		
147a	Sunstroke.....	32	1.3
147b	Freezing.....	8	0.3
148	Accidental drowning.....	256	10.7
149	Starving.....		
150	Noxious gases.....	9	0.4
151	Other accidental poisons.....	74	3.1
152a	Other accidents.....	554	23.1
	<i>C. Homicide.....</i>	<i>15</i>	<i>0.6</i>
152b	Homicide.....	15	0.6
	XV. CAUSES ILL-DEFINED.....	1,435	59.8
153	Exhaustion, cachexia, debility.....	368	15.3
154	Fever, inflammation.....	31	1.3
155a	Dropsy.....	184	7.7
155b	Heart failure.....	367	15.3
156	Asphyxia, cyanosis.....	17	0.7
157	Sudden death.....	1	0.0
158	Abdominal tumor.....	21	0.9
159	Other tumors.....	25	1.0
161	Unknown or not specified causes.....	421	17.5

Table 18.—Causes of death in Michigan, by months and ages.

Line number.	Causes of death, 1900.	Total deaths, 1900.	Rate per 100,000 population.	Months of death, 1900.											
				Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1	ALL CAUSES.....	33,778	1,395.2	2,684	2,698	3,135	3,121	2,823	2,326	2,578	2,995	3,369	2,832	2,520	2,697
2	Stillbirths (included in above)...	1,325	54.7	121	92	117	113	118	96	121	111	123	113	103	97
3	Typhoid fever.....	869	35.9	52	32	34	21	30	30	33	65	138	168	145	121
4	Measles.....	342	14.1	41	53	71	62	51	24	17	6	2	4	8	3
5	Scarlet fever.....	272	11.2	20	24	26	22	18	20	19	14	19	26	26	38
6	Whooping cough.....	208	8.6	17	16	27	21	33	24	23	18	13	7	3	6
7	Diphtheria and croup.....	529	21.9	71	47	35	32	25	24	11	18	44	64	91	67
8	Influenza.....	500	20.7	54	64	107	117	62	20	14	6	10	6	11	29
9	Other epidemic diseases.....	37	1.5	1	1	4	4	3	6	3	4	4	4	1	2
10	Malaria.....	172	7.1	3	11	9	6	13	10	10	16	26	27	24	17
11	Tuberculosis of lungs.....	2,018	83.4	168	180	202	187	205	161	158	150	159	140	158	150
12	Other forms of tuberculosis.....	460	19.0	37	29	53	41	35	38	36	37	43	40	35	36
13	Cancer.....	1,460	60.3	133	114	114	132	110	115	116	124	137	113	125	127
14	Rheumatism.....	243	10.0	24	19	34	20	24	13	19	23	14	19	17	17
15	Diabetes.....	224	9.3	29	22	23	11	14	22	17	19	18	14	16	19
16	Other general diseases.....	560	23.1	44	48	48	52	56	42	61	58	41	37	40	33
17	Simple meningitis.....	514	21.2	54	40	60	51	56	41	35	47	33	45	23	29
18	Cerebrospinal meningitis.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19	Cerebral congest'n and hem.....	1,250	52.0	112	95	115	118	104	101	101	98	109	102	99	105
20	Paralysis.....	788	32.5	75	60	70	69	71	57	62	57	58	65	68	76
21	Convulsions of infants.....	519	21.4	32	35	60	57	54	40	52	37	36	36	36	44
22	Other nervous diseases.....	976	40.3	65	77	90	94	109	77	74	89	75	81	72	73
23	Organic heart disease.....	2,472	102.1	211	227	219	230	228	195	196	166	186	179	214	221
24	Other circulatory diseases.....	587	24.2	51	54	71	43	57	36	46	45	42	41	55	46
25	Bronchitis.....	802	33.1	72	85	112	126	92	34	29	41	40	50	49	72
26	Broncho-pneumonia.....	353	14.6	45	40	45	55	33	20	16	15	10	18	19	57
27	Pneumonia.....	2,085	84.1	219	278	328	340	196	106	57	43	59	91	109	209
28	Pleurisy.....	159	6.6	14	20	27	18	11	11	9	5	6	9	14	15
29	Other respiratory diseases.....	528	21.8	50	56	48	48	39	38	38	32	30	32	48	69
30	Stomach diseases.....	650	26.8	42	44	49	60	60	44	43	69	66	57	61	55
31	Infantile diarrhea.....	2,503	103.4	35	40	50	58	66	84	275	600	803	351	92	49
32	Diarrhea and enteritis.....	446	18.4	22	27	22	26	27	18	41	62	84	64	31	22
33	Dysentery.....	254	10.5	5	4	8	4	3	5	12	43	98	53	13	6
34	Liver diseases.....	594	24.5	47	41	65	62	56	43	61	43	55	40	36	45
35	Peritonitis.....	343	14.2	33	29	25	29	33	26	29	33	28	28	13	37
36	Iliac abscess.....	221	9.1	15	17	11	16	24	13	17	40	29	14	10	15
37	Other digestive diseases.....	467	19.3	28	35	41	35	33	27	39	41	44	50	54	40
38	Bright's disease.....	852	35.2	71	69	85	74	65	76	61	67	66	64	71	83
39	Other genito-urin'y diseases.....	710	29.3	63	77	56	63	56	53	55	60	64	53	66	44
40	Puerperal diseases.....	452	18.7	25	38	61	50	50	33	31	37	28	33	27	39
41	Skin diseases.....	296	12.2	24	33	35	27	26	27	21	16	12	25	19	31
42	Diseases locomotor system.....	57	2.4	2	5	5	6	2	5	4	4	9	6	2	7
43	Malformations.....	206	8.5	15	10	16	25	18	18	14	25	15	18	12	20
44	Diseases of infancy.....	1,441	59.5	106	114	122	121	123	115	126	127	159	129	92	107
45	Diseases of old age.....	674	27.8	67	62	65	69	52	52	39	54	63	51	56	54
46	Suicide.....	211	8.7	25	9	15	21	23	16	28	19	14	15	8	18
47	Accidents.....	1,740	71.9	118	117	132	148	136	167	199	186	126	143	127	141
48	Homicide.....	15	0.6	1	.....	1	1	1	.....	.....	3	5	1	.....	2
49	Causes ill-defined.....	1,435	59.3	125	118	122	136	122	103	110	122	126	106	121	124

CAUSES OF DEATH.

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for the State and geographical sections, 1900.—STATE.

Ages of decedents, 1900.

Ages in years under five.					Ages by five-year periods.																	Line number.		
0.	1.	2.	3.	4.	0 to 4.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 +		Unk.	
8,191	1366	587	359	265	10,768	944	654	1026	1306	1318	1144	1130	1123	1124	1250	1419	1604	1947	2167	2063	2703	88	1	
1,325					1,325																			
5	13	7	7	7	39	49	85	121	162	102	84	54	51	36	25	18	12	11	7	7	5	1	3	
87	69	36	24	13	229	35	16	16	8	13	9	4	5	3	1	2							4	
21	27	34	39	30	151	87	18	4	2	1	3	1	2										5	
135	37	16	5	6	199	9																	6	
49	66	66	55	48	274	164	56	20	4	4	1												7	
36	7	4	4	1	52	6	6	5	14	9	18	13	14	16	14	28	28	45	57	80	93	2	8	
8	3		2		13	1	1	2	5	1	1	2	2			2	1	3	2			1	9	
7	4	6	3	3	23	5	5	16	15	15	11	7	9	5	5	7	6	12	11	11	9		10	
29	12	5	4	6	56	14	47	193	324	327	227	195	136	127	90	69	69	65	37	31	10	1	11	
47	28	15	6	6	102	36	18	40	46	39	29	27	26	21	23	18	11	15	4	1	4		12	
1	4	1	3	3	12	3	6	8	9	19	32	53	98	140	151	200	169	199	166	114	79	2	13	
2					4	11	18	16	7	5	3	8	7	10	12	18	22	25	30	28	19	.....	14	
1					5	9	13	12	12	9	8	9	10	11	19	12	29	22	20	12	12	.....	15	
88	10	5	5	3	111	11	8	12	34	26	42	42	36	39	42	41	37	26	29	12	9	3	16	
133	71	34	26	23	287	58	29	34	20	18	10	9	14	8	3	6	7	3	4	2	1	1	17	
54	12	4	4	3	77	10	4	9	11	10	20	31	48	53	77	89	126	156	212	159	166	1	18	
7	2	2	1	1	13	2	2	3	4	3	5	8	19	28	31	43	88	106	129	134	166	4	20	
458	43	11	5	2	519	37	28	26	26	42	39	53	49	53	62	59	71	82	64	76	67	3	22	
98	28	7	9	2	139	37	28	26	26	42	39	53	49	53	62	59	71	82	64	76	67	3	22	
153	10	2	.....	4	169	29	25	38	33	47	46	59	84	100	144	190	233	309	363	301	307	4	23	
13	7	1	1	4	26	9	11	18	12	24	13	11	23	28	35	38	52	75	92	65	54	1	24	
292	77	29	12	2	412	12	5	9	11	7	5	5	8	8	9	22	29	43	54	56	107	.....	25	
156	53	24	9	4	246	17	2	1	2	3	2	4	2	5	4	4	11	9	12	15	14	.....	26	
391	155	70	33	21	670	76	36	66	70	81	77	77	70	90	85	89	103	107	115	119	102	2	27	
5	1	3	.....	1	10	3	4	7	8	14	13	12	10	5	16	8	13	8	10	6	12	.....	28	
103	17	9	4	1	134	16	10	8	13	18	16	16	22	11	17	35	25	41	45	45	55	1	29	
203	23	6	3	4	239	5	2	7	9	13	13	17	14	17	19	41	44	51	50	46	62	1	30	
1,933	404	113	31	21	2,502	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	31	
60	25	15	5	2	107	6	.....	2	1	1	3	3	3	3	4	7	8	17	23	26	38	2	32	
21	4	4	3	.....	32	8	8	9	10	17	12	21	36	37	57	64	69	68	74	36	35	1	34	
16	10	3	5	1	35	24	19	32	35	41	35	27	16	14	7	11	10	16	5	7	7	2	35	
1	2	1	3	3	10	18	35	32	19	22	18	26	11	7	7	4	4	3	1	4	.....	.....	36	
106	19	6	10	3	144	15	9	10	23	20	10	12	14	22	24	24	29	31	34	24	22	.....	37	
5	1	.....	.....	2	8	11	6	12	20	29	28	35	47	42	85	75	83	100	91	101	78	1	38	
29	10	4	4	3	50	15	8	15	31	28	40	46	39	32	24	31	31	59	77	83	100	1	39	
.....	.....	.....	.....	.....	.....	.....	.....	39	90	124	96	64	34	4	1	.....	.....	.....	.....	.....	.....	.....	40	
54	9	3	3	1	70	2	1	4	6	7	12	8	10	16	17	12	20	18	31	26	36	.....	41	
17	5	1	.....	.....	23	.....	4	3	3	3	.....	5	.....	2	3	2	2	4	.....	3	.....	.....	42	
183	17	2	2	.....	204	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	43	
1,413	21	4	1	2	1,441	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	44	
.....																1	3	10	26	70	124	437	3	45
.....	.....	.....	.....	.....	.....	.....	.....	11	23	18	14	15	16	13	17	20	15	18	16	5	8	2	46	
113	46	30	27	18	234	89	91	143	155	125	114	113	101	76	72	65	63	40	60	52	118	29	47	
.....	.....	1	.....	1	.....	.....	2	4	1	2	1	2	1	1	.....	1	.....	.....	1	.....	.....	.....	48	
338	24	3	1	4	870	13	6	8	11	21	17	22	25	25	26	41	45	94	122	193	381	15	49	

VITAL STATISTICS OF MICHIGAN, 1900.

Table 18.—Continued.—Causes of death in Michigan, by months and ages.

Line number.	Causes of death, 1900.	Total deaths, 1900.	Rate per 100,000 population.	Months of death, 1900.											
				Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1	ALL CAUSES.....	3,599	1,377.0	264	259	295	308	304	246	271	422	425	270	257	278
2	Stillbirths (included in above)...	201	76.9	21	12	22	16	15	12	15	12	19	21	16	20
3	Typhoid fever.....	105	40.2	7	4	4	.....	2	2	2	7	14	28	21	14
4	Measles.....	22	8.4	6	5	3	1	1	2	.....	.....	.....	.....	3	1
5	Scarlet fever.....	93	35.6	2	7	5	10	9	9	7	5	8	9	9	13
6	Whooping cough.....	31	11.9	2	3	2	6	8	1	5	2	1	1	.....	.....
7	Diphtheria and croup.....	69	26.4	14	4	6	4	2	5	3	2	5	5	12	7
8	Influenza.....	23	8.8	5	.....	3	5	6	3	1	.....	.....	.....	.....	.....
9	Other epidemic diseases.....	5	1.9	.....	.....	1	1	.....	.....	.....	1	.....	1	1	.....
10	Malaria.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11	Tuberculosis of lungs.....	209	80.0	25	19	19	19	21	16	22	14	11	11	16	16
12	Other forms of tuberculosis.....	62	23.7	4	3	8	2	3	5	4	6	11	5	5	6
13	Cancer.....	87	33.3	5	7	8	9	9	9	6	8	13	2	4	7
14	Rheumatism.....	14	5.4	1	3	2	1	.....	.....	.....	2	1	1	2	1
15	Diabetes.....	16	6.1	6	2	.....	1	.....	2	2	.....	1	.....	.....	2
16	Other general diseases.....	47	18.0	2	4	7	6	3	1	5	8	4	2	1	4
17	Simple meningitis.....	65	24.9	9	6	9	1	9	6	8	5	4	3	1	4
18	Cerebrospinal meningitis.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19	Cerebral congest'n and hem.....	50	19.1	7	2	2	6	5	7	5	3	5	3	1	4
20	Paralysis.....	22	8.4	1	2	4	2	1	1	.....	3	1	1	4	2
21	Convulsions of infants.....	86	32.9	7	3	10	14	12	7	3	8	5	6	4	7
22	Other nervous diseases.....	53	20.3	3	4	4	7	1	5	3	8	.....	5	6	7
23	Organic heart disease.....	123	47.1	14	9	5	4	11	10	6	15	13	9	15	12
24	Other circulatory diseases.....	34	13.0	.....	3	5	3	5	2	2	4	2	2	4	2
25	Bronchitis.....	144	55.1	6	13	14	29	18	11	9	6	9	9	10	10
26	Broncho-pneumonia.....	56	21.4	4	7	8	5	3	2	2	6	2	5	5	7
27	Pneumonia.....	214	81.9	22	26	22	40	24	16	2	5	10	9	9	29
28	Pleurisy.....	18	6.9	2	.....	4	.....	2	2	2	1	2	1	1	1
29	Other respiratory diseases.....	49	18.7	4	3	6	5	5	6	5	2	2	3	3	5
30	Stomach diseases.....	56	21.4	3	1	3	7	6	4	5	6	6	7	4	4
31	Infantile diarrhea.....	468	179.1	3	13	7	9	14	12	38	163	154	36	8	11
32	Diarrhea and enteritis.....	28	10.7	.....	2	.....	1	3	.....	3	8	6	2	2	1
33	Dysentery.....	19	7.3	.....	.....	1	1	.....	.....	1	2	9	2	.....	1
34	Liver diseases.....	36	13.8	5	3	5	2	4	.....	4	2	4	4	2	1
35	Peritonitis.....	28	10.7	4	.....	1	4	2	1	4	3	3	3	1	2
36	Iliac abscess.....	30	11.5	3	2	2	2	2	.....	3	8	3	2	2	1
37	Other digestive diseases.....	38	14.5	4	1	3	2	5	3	5	2	5	5	2	1
38	Bright's disease.....	61	23.3	3	4	8	5	6	6	5	4	6	1	6	7
39	Other genito-urin'y diseases.....	48	18.4	5	2	2	7	4	2	2	5	6	4	5	4
40	Puerperal diseases.....	44	16.8	3	3	8	7	5	4	3	3	1	4	1	2
41	Skin diseases.....	27	10.3	3	3	1	1	4	3	.....	1	1	2	.....	8
42	Diseases locomotor system.....	5	1.9	.....	2	.....	1	.....	.....	.....	1	.....	.....	1	.....
43	Malformations.....	18	6.9	2	2	2	3	1	5	.....	1	.....	.....	.....	2
44	Diseases of infancy.....	221	84.6	19	19	22	16	17	20	17	19	22	18	14	18
45	Diseases of old age.....	29	11.1	.....	4	4	2	2	3	2	2	4	1	3	2
46	Suicide.....	12	4.6	2	2	1	.....	2	1	2	1	1	.....	.....	.....
47	Accidents.....	331	126.6	16	29	31	24	31	27	38	34	29	20	31	21
48	Homicide.....	3	1.1	.....	.....	.....	.....	1	.....	.....	.....	2	.....	.....	.....
49	Causes ill-defined.....	199	76.1	8	16	11	17	20	13	20	24	20	17	22	11

CAUSES OF DEATH.

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for the State and geographical sections, 1900.—Upper Peninsula.

Ages of decedents, 1900.																						
Ages in years under five.					Ages by five year periods.																	
0.	1.	2.	3.	4.	0 to 4.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 +	Unk.
1,338	237	89	70	52	1,786	167	76	103	173	183	140	143	114	105	77	102	74	105	83	75	70	33
201					201																	2
	1	1	1	2	5	7	11	8	11	22	15	9	6	5	3	1					1	1
2	9	2	4		17	5																3
7	11	12	17	10	57	28	4			1	2											4
22	6	3			31																	5
9	7	10	6	9	41	20	7	1														6
5	1		1		7		1	1		1	1	1			1	3	1	1	1	3	1	7
2	1				3						1	1										8
																						9
																						10
6		3	1	1	11	3	7	18	39	43	24	24	16	12	3	5	4					11
10	6	3		3	22	14	1	4	2	4	1	4	2	2	2	1	2		1			12
				1	1		2	1			1	2	7	10	10	18	7	14	8	4	1	13
1					1		2	2	1	1				1				2	2		2	14
							1	1	1	1	1	1	1	1	1	2	1	1	2	1		15
4		1	2		7		3	1	2	5	2	11	5	2	4	4						16
																						17
16	8	3	5	4	36	7	6	3	2	2	1	1	4	1		1						18
					1				2		2	2	4	5	3	8	1	9	6	3	4	19
1					3		1						1	2		2	2	6	1	3	1	20
66	13	3	2	2	86																	21
9	2		3		14	3	2	1	3	5	3	3	4	4	1	1		5	2	1	1	22
																						23
12	2			1	15	2	1	5	4	5	4	7	3	8	7	8	11	17	11	9	5	1
1	1			1	3	1	2	1	3	1	1	2	3	2	2	3		4	3	1	24	
																						25
76	23	6	3	2	110	2	1	1		1			1			6	5	3	3	3	8	26
24	14	5	4	1	48	3							1		1			1	1			27
63	20	12	4	2	101	7	3	6	13	11	8	7	12	8	4	4	10	8	7	2	1	28
1		1			2	2		1	3		2		2	1		1	2		1	1		29
7	4		1		12	5			3	4	2	2	2		2	2	1	5	5	3	1	30
																						31
29	3			1	33	2		2		1	2		2	1	1	2	2	2	2	3	1	32
373	70	14	6	4	467																	33
																						34
9	4			2	15	1							1	1	1	1	2	1		1	2	35
3					6	2		1		3		4	4	2	3	5		3	1	1	1	36
																						37
		1			1	4	3	2	1	4	5	1			1		2	1		1	2	38
				1	1	6	6	4	3	1	4	2		1	1	1						39
16	4		1		21	1	1		2	1	1		1	3		2		2	1			40
																						41
1					1	3			3	5	6	4	2	4	10		9	4	4	5	1	42
1	3	2		1	7	2		2	8	2	5	3	1	4	1	1	1	1	4	3	2	43
																						44
									5	7	17	4	6	5								45
7	3	2			12			1	1	1	2	1	1		2	1	1	2	1	1		46
																						47
3		1			4										1							48
																						49
14	3				17	1																50
																						51
217	3	1			221																	52
																						53
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																						98
																						99
																						100
106	9			2	117	4	3	1		2	2	4		4	2	8	4	6	6	9	19	8

Table 18.—Continued.—Causes of death in Michigan, by months and ages,

Line number.	Causes of death, 1900.	Total deaths, 1900.	Rate per 100,000 population.	Months of death, 1900.											
				Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1	ALL CAUSES.....	3,905	1,316.3	277	296	341	327	335	288	274	405	437	346	267	312
2	<i>Stillbirths</i> (included in above)...	133	44.8	11	11	11	9	11	9	8	16	16	8	10	13
3	Typhoid fever.....	132	44.5	7	2	1	2	7	2	.....	9	24	23	25	29
4	Measles.....	65	21.9	6	9	12	5	13	9	7	2	.....	1	1	.....
5	Scarlet fever.....	37	12.5	6	4	4	1	2	2	5	1	2	1	4	5
6	Whooping cough.....	22	7.4	3	1	4	.....	2	2	2	4	3	.....	1	1
7	Diphtheria and croup.....	55	18.5	7	5	4	3	5	3	2	1	2	6	8	9
8	Influenza.....	51	17.2	2	13	12	9	6	2	2	1	1	1	.....	2
9	Other epidemic diseases.....	6	2.0	.....	.....	1	.....	.....	1	.....	.....	2	.....	.....	2
10	Malaria.....	23	7.8	.....	2	1	.....	1	.....	.....	4	2	4	5	4
11	Tuberculosis of lungs.....	225	75.8	20	19	21	18	27	23	19	14	18	13	17	16
12	Other forms of tuberculosis.....	36	12.1	4	.....	4	2	1	1	5	4	7	3	2	3
13	Cancer.....	195	35.4	12	11	7	12	4	7	13	9	6	9	7	8
14	Rheumatism.....	30	10.1	1	.....	4	2	6	3	4	4	1	3	1	1
15	Diabetes.....	11	3.7	1	1	.....	1	2	.....	2	1	1	.....	1	1
16	Other general diseases.....	63	21.2	7	2	5	7	7	5	6	6	4	5	5	4
17	Simple meningitis.....	60	20.2	5	5	6	4	8	4	9	7	4	5	1	2
18	Cerebrospinal meningitis.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19	Cerebral congest'n and hem.....	108	36.4	12	4	8	9	12	8	8	8	11	14	6	8
20	Paralysis.....	73	24.6	5	4	9	5	6	7	4	8	9	3	5	8
21	Convulsions of infants.....	63	21.2	.....	5	8	9	5	6	6	7	6	4	4	3
22	Other nervous diseases.....	117	39.4	4	14	8	7	11	9	12	14	13	9	8	8
23	Organic heart disease.....	207	69.8	12	23	13	24	20	26	16	9	9	17	22	16
24	Other circulatory diseases ..	63	21.2	6	2	7	4	6	5	4	10	5	4	7	3
25	Bronchitis.....	101	34.0	9	12	11	17	14	8	6	5	4	3	5	7
26	Broncho-pneumonia.....	28	9.4	3	3	6	2	2	2	.....	1	1	2	6	.....
27	Pneumonia.....	276	93.0	24	42	43	41	32	17	7	6	13	10	17	24
28	Pleurisy.....	13	4.4	1	1	2	.....	1	1	.....	2	.....	1	.....	4
29	Other respiratory diseases ..	68	22.9	4	8	6	5	5	6	5	4	3	6	4	12
30	Stomach diseases.....	84	28.3	6	7	8	6	8	10	3	7	6	12	6	5
31	Infantile diarrhea.....	434	146.3	5	3	11	9	13	12	28	105	158	68	15	7
32	Diarrhea and enteritis.....	55	18.5	2	2	3	5	3	1	7	8	9	8	4	3
33	Dysentery.....	28	9.4	.....	.....	.....	.....	.....	1	3	6	10	6	1	1
34	Liver diseases.....	54	18.2	2	3	4	12	3	7	5	3	5	2	4	4
35	Peritonitis.....	37	12.5	3	1	.....	3	2	5	.....	7	2	6	3	5
36	Iliac abscess.....	21	7.1	1	1	.....	.....	3	3	.....	5	4	1	2	1
37	Other digestive diseases.....	50	16.9	1	2	3	2	4	3	6	8	6	2	6	7
38	Bright's disease.....	60	20.2	5	7	6	7	8	5	2	4	.....	4	4	8
39	Other genito-urin'y diseases	59	19.9	7	7	4	8	3	5	3	7	3	8	2	2
40	Puerperal diseases.....	76	25.6	4	3	11	6	9	5	6	12	5	4	2	9
41	Skin diseases.....	30	10.1	4	2	4	2	2	6	.....	1	2	1	3	3
42	Diseases locomotor system..	7	2.4	.....	.....	1	1	.....	.....	1	.....	2	1	.....	1
43	Malformations.....	40	13.5	5	2	1	8	5	1	2	7	5	2	.....	2
44	Diseases of infancy.....	154	51.9	15	13	20	16	12	10	11	16	15	8	7	11
45	Diseases of old age.....	97	32.7	9	11	7	7	11	9	5	12	7	5	7	7
46	Suicide.....	17	5.7	1	1	2	3	1	.....	3	.....	.....	2	2	2
47	Accidents.....	234	78.9	17	14	18	15	15	27	28	26	11	20	17	26
48	Homicide.....	1	0.3	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....
49	Causes ill-defined.....	196	66.1	18	14	20	19	17	10	9	15	19	22	15	18

CAUSES OF DEATH.

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for the State and geographical sections, 1900.—Northern counties.

Ages of decedents, 1900.																							
Ages in years under five.					Ages by five-year periods.																		
0.	1.	2.	3.	4.	0 to 4.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 +	Unk.	
1,182	221	90	50	39	1,582	131	101	149	172	147	114	136	126	107	141	164	145	165	166	149	196	14	
133					133																	2	
1	3		5	1	10	8	14	25	22	10	11	7	7	5	5	4	3			1		3	
22	12	8	1	5	48	4	4	3	1	2	2			1								4	
3	4	7	1	4	19	12	2	1	1		1											5	
16	2	1		1	20	2																6	
5	6	4	9	2	26	20	8	1														7	
6	2		1		9	3	2	2	4			1	1	4		3	2	2	5	6	6	1	
2					2			1	1							1			1			8	
1	1				2	1	3	1	4	3	2	1	1	1				1	2	1		10	
8	4		2	1	15	1	9	21	36	23	23	21	15	14	15	6	5	5		3	2	1	
6	3	1	3	2	15	1	4	2	4	1	1	1	1	3	2			1				11	
		1			1	1	1	3	4	1	5	9	8	12	17	13	14	5	10	1		13	
						3		3	1		1	1	2	2	4	3	2	3	2	3	1	14	
								1					1	1		3	1	1	1	1		15	
13	3				16	3	1	2	4	4	3	3	4	3	5	6	2	3	2	1	1	16	
19	8	4	1	3	35	9	4	3	2	2	2	1		1			1					17	
9	1	1	2	1	14	1			3	1	4	1	4	5	9	11	15	12	11	6	10	18	
	1				1			2		1			2	3	5	1	11	8	11	12	14	19	
60	3				63																	20	
18	4	1	2	1	26	11	5	2		7	4	8	5	5	11	7	8	5	3	5	5	21	
17	2	1			20	2	3	7		2	5	8	9	5	18	24	21	29	26	15	13	22	
1	1		1		3	1	1	3	1	2		2	4	2	4	5	3	9	13	5	4	124	
46	9	5	2		62	1	1	2	4	2	2	1	1	1	1	3	3	5	8	1	3	25	
14	4	1	1		20	2		1	1						1			1				26	
70	34	14	6	6	130	11	5	12	13	12	7	8	8	7	9	17	6	7	8	13	3	27	
										2	2	1	1		4			1	1		1	28	
20	4	2			26	3	2	1	2	1	2	2	3	1	1	6	3	4	5	3	3	29	
37	4	2	1		44			1	2	3	1	2	3	1	2	5	6	4	4	1	5	30	
320	77	27	6	4	434																	31	
						6	2	3	2			4	1	2	4	3	7	5	6	7	2	132	
10	1	4		1	16	1		1					1			1	1			2	5	33	
1	1				2	1		2	2	1		6	3	3	6	5	5	5	9	3	1	34	
1	3		1		5	3	2	4	5	5		1	2	3		3	1	1	2			35	
		1	1		2		3	2	2	3	1	4	2			1			1			36	
20	2	1			23	1	2		1		2	1	4	4	3	2	1	3	1			37	
																						38	
						1	1		1	6	1	3	4	3	8	7	5	8	3	4	5	38	
7	2		1	1	11	2	1	2	3	3	5	3	2	3	2	2	2	5	4	7	2	39	
									8	20	14	15	12	6	1							40	
14					14				1				1	1	1	1		1	1	4	1	41	
2	2				4		1									1	1					42	
37	2	1			40																	43	
150	3	1			154																	44	
																						45	
																			2	10	17	66	245
									1	2	1		1	2	2	1		1	3	1		1	46
15	8	1	3	5	32	13	20	25	24	17	12	22	12	8	8	10	11	4	6	4	4	247	
											1											48	
78	5	1		1	85	3		1	3	5	3	3	6	3	2	6	3	13	11	18	30	149	

Table 18.—Continued.—Causes of death in Michigan, by months and ages.

Line number.	Causes of death, 1900.	Total deaths, 1900.	Rate per 100,000 population.	Months of death, 1900.											
				Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1	ALL CAUSES.....	5,808	1,318.1	432	509	556	506	458	397	379	510	620	546	436	430
2	Stillbirths (included in above)...	222	50.4	20	17	20	28	24	16	19	22	20	13	14	9
3	Typhoid fever.....	164	37.2	12	6	9	2	6	4	6	13	25	32	26	23
4	Measles.....	64	14.5	4	7	9	16	12	4	4	3	.....	2	2	1
5	Scarlet fever.....	54	12.3	5	6	5	3	2	2	3	5	2	9	6	6
6	Whooping cough.....	41	9.3	2	2	7	4	4	5	4	6	3	.....	3	1
7	Diphtheria and croup.....	120	27.2	12	14	6	6	8	5	.....	7	17	15	16	14
8	Influenza.....	92	20.9	12	10	31	13	12	5	2	.....	.....	1	2	4
9	Other epidemic diseases.....	4	0.9	.....	1	1	.....	.....	.....	.....	2	.....	.....	.....	.....
10	Malaria.....	40	9.1	.....	2	4	1	5	4	4	1	6	4	4	5
11	Tuberculosis of lungs.....	344	78.1	26	35	33	37	33	29	27	16	30	33	26	19
12	Other forms of tuberculosis.....	80	18.2	7	3	10	9	4	6	9	5	10	10	5	2
13	Cancer.....	229	52.0	16	21	18	22	16	17	21	21	17	26	18	2
14	Rheumatism.....	40	9.1	5	1	4	3	5	2	4	7	1	2	4	1
15	Diabetes.....	40	9.1	3	4	7	1	1	4	1	4	4	4	1	1
16	Other general diseases.....	93	21.1	3	8	10	7	8	9	8	8	9	7	12	4
17	Simple meningitis.....	95	21.6	5	8	10	14	12	10	1	4	6	11	5	9
18	Cerebrospinal meningitis.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19	Cerebral conges'n and hem.....	219	49.7	13	17	21	20	21	16	17	19	20	16	20	19
20	Paralysis.....	122	27.7	9	17	10	8	11	10	10	11	6	12	8	18
21	Convulsions of infants.....	77	17.5	7	5	13	5	4	5	11	7	6	5	2	7
22	Other nervous diseases.....	134	30.4	6	18	17	9	9	10	9	13	12	13	10	8
23	Organic heart disease.....	423	96.0	34	48	44	40	30	39	34	27	29	35	24	39
24	Other circulatory diseases.....	61	13.8	10	7	4	4	6	5	4	3	3	4	6	5
25	Bronchitis.....	126	28.6	13	13	13	21	13	4	2	3	5	7	11	21
26	Broncho-pneumonia.....	54	12.3	7	6	6	10	3	3	2	3	2	2	3	7
27	Pneumonia.....	379	86.0	39	60	58	55	33	19	11	10	14	16	20	44
28	Pleurisy.....	22	5.0	3	2	8	3	1	1	2	.....	1	.....	1	.....
29	Other respiratory diseases.....	89	20.2	8	6	6	5	7	6	8	6	4	7	13	13
30	Stomach diseases.....	102	23.1	5	11	2	9	7	5	7	14	13	9	12	8
31	Infantile diarrhea.....	461	104.6	4	6	6	9	12	11	13	93	180	99	19	9
32	Diarrhea and enteritis.....	80	18.2	3	5	1	3	2	4	5	10	25	15	3	4
33	Dysentery.....	38	8.6	.....	1	1	.....	.....	.....	2	8	15	7	3	1
34	Liver diseases.....	100	22.7	7	4	10	5	9	8	10	10	11	5	6	11
35	Peritonitis.....	59	13.4	4	9	8	2	4	7	4	5	3	6	2	5
36	Iliac abscess.....	34	7.7	3	5	.....	4	6	1	1	8	2	1	1	2
37	Other digestive diseases.....	89	20.2	5	9	12	4	7	5	5	11	7	9	10	5
38	Bright's disease.....	169	38.4	22	18	12	11	11	15	14	13	12	15	11	15
39	Other genito-urin'ry diseases.....	133	30.2	11	19	10	4	15	8	10	16	11	8	13	8
40	Puerperal diseases.....	82	18.6	3	5	11	8	9	7	10	5	3	8	6	7
41	Skin diseases.....	46	10.4	4	10	7	3	6	2	2	1	1	5	1	4
42	Diseases locomotor system.....	7	1.6	.....	.....	2	.....	.....	2	.....	.....	1	1	.....	1
43	Malformations.....	38	8.6	.....	5	3	4	1	5	5	3	2	5	3	2
44	Diseases of infancy.....	226	51.3	13	17	19	21	28	19	9	17	28	21	20	14
45	Diseases of old age.....	110	25.0	15	10	9	9	10	8	5	5	12	7	12	8
46	Suicide.....	28	6.4	4	.....	2	1	3	3	9	3	.....	.....	.....	3
47	Accidents.....	280	63.5	21	13	27	28	21	30	23	36	14	21	20	26
48	Homicide.....	5	1.1	.....	.....	1	1	.....	.....	.....	1	.....	1	.....	1
49	Causes ill-defined.....	293	66.5	27	18	29	30	17	18	26	25	24	26	19	34

CAUSES OF DEATH.

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for the State and geographical sections, 1900.—Central counties.

Ages of decedents, 1900.																								
Ages in years under five.					Ages by five-year periods.																			
0.	1.	2.	3.	4.	0 to 4.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 +	Unk.	Line number.	
1,415	261	108	63	50	1,897	190	138	207	255	221	197	169	190	172	233	226	249	344	352	349	413	6	1	
222					222																		2	
2	2	1		1	6	8	18	26	31	22	13	8	13	5	4		4	3	1		2		3	
17	12	6	4	2	41	4	4	2	3	3	2	1	3		1								4	
5	6	4	10	7	32	15	3	2	1														5	
30	5	2	1	3	41																		6	
10	8	13	12	11	54	37	16	8		2	1		1			1							7	
9	1	3		1	14	1	1	1	7		2	1	3		5	2	2	10	16	15	11	1	8	
1					1	1			1								1						9	
2		2	1		5	1		1	5	7	3		3	1	1	4	3	1	1	2	2		10	
4	1	1		1	7	2	10	46	60	59	33	33	19	25	12	7	9	11	8	3			11	
8	7	4	1	1	21	6	2	10	8	7	9	3	3	2	1	3		4	1				12	
1	1				2		2	1	6	1	4	9	14	18	33	34	31	33	20	9	11	1	13	
						2	6	5				2	1	1	2	4	5	1	4	5	2		14	
13				1	2	3	5	1	3		1	3	1		2	1	4	4	2	3	5		15	
1	3	2		1	3	19	2	4	2	8	3	6	3	8	7	5	6	8	4	7	1		16	
28	12	8	3	1	52	14	4	6	7	7		1	2					1	1				17	
16	6			2	24	4			3	1	2	5	5	8	5	14	11	19	23	38	28	29	18	
									1	1		2	1	2	5	6	9	10	20	25	19	21	19	
67	7	2	1		77																		20	
17	7	1	1		26	8	6	3	4	3	8	4	2	6	9	11	7	17	5	6	9		21	
21	1			2	24	4	4	6	10	10	8	8	18	23	37	33	33	54	55	54	42		22	
3	3				6			1	4	4	1	1	1	1	2	3	6	8	9	11	3		23	
44	13	3	1		61	2	1	2	2	1	2	2		1	2	3	4	5	9	8	21		24	
28	8	4	1	1	42	3	1				1	1							2	1			25	
58	26	14	6	3	107	18	8	15	12	18	15	12	16	21	15	14	25	28	25	16	14		26	
1					1			2	1	1	1	3		1	3		1	4	3	2	1		27	
27	2	1		1	31	2		2	4	2		6			1	5	4	3	8	10	7	4	28	
39	2	1			42	2		1	2				3	4	4	4	5	5	8	10	4	7	29	
344	90	19	5	3	461																		30	
					14	4	1	2	2	3	1	1	1	1	1	2	4	9	7	13	15		31	
12	4	1	1		18	1									3		2	2	5	6			32	
4	1	1			6	1	2	1	3	3	1	1	8	5	8	15	10	12	8	10	6		33	
3	3	1	1		8	5	8	5	2	8	9	4	2		1	2	2	2					34	
				1	1		4	6	5	3		6	2	1	2	1	1	1		1			35	
23	2	2	1		28	2	1	4	4	1	2	1	4	7	8	5	6	5	4	3			36	
				1	1	3	2	3	6	5	6	8	11	6	22	18	16	17	13	20	12		37	
8	2		3		13	2	1	6	6	5	7	8	9	6	1	6	2	15	14	19	13		38	
								7	20	13	22	11	7	1	1								39	
5	3		1		9		1		1	2	3	2	1	2	6	2	6	1	1	4	5		40	
2	1				3																		41	
32	4	1	1		38												1	1					42	
219	7				226																		43	
																			6	9	19	76	44	
								2	1	4	2	2	2		2	3		3	3	1	3		45	
18	9	10	7	3	47	21	19	25	19	18	21	8	16	13	17	7	7	5	12	9	15	1	46	
		1		1	2				2									1					47	
71	3	2			76	2	1		3	2	5	5	8	4	4	4	10	18	24	47	79	1	48	

Table 18.—Concluded.—Causes of death in Michigan, by months and ages.

Line number.	Causes of death, 1900.	Total deaths, 1900.	Rate per 100,000 population.	Months of death, 1900.											
				Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1	ALL CAUSES	20,466	1,438.9	1,711	1,634	1,943	1,980	1,726	1,385	1,654	1,658	1,887	1,670	1,500	1,648
2	Stillbirths (included in above) ..	769	54.1	69	52	64	60	68	59	79	61	68	71	63	55
3	Typhoid fever	468	32.9	26	20	20	17	15	22	25	36	75	75	73	64
4	Measles	191	13.4	25	32	47	40	25	9	6	1	2	1	2	1
5	Scarlet fever	88	6.2	7	7	12	8	5	7	4	3	7	7	7	14
6	Whooping cough	114	8.0	10	10	14	11	19	16	12	6	6	6	6	4
7	Diphtheria and croup	285	20.0	38	24	19	19	10	11	6	8	20	38	50	37
8	Influenza	334	23.5	35	41	61	90	38	10	9	5	9	4	9	35
9	Other epidemic diseases	22	1.5	1	.....	1	3	3	5	3	1	2	3	.....	.....
10	Malaria	109	7.7	3	7	4	5	7	6	6	11	18	19	15	8
11	Tuberculosis of lungs	1,240	87.2	97	107	129	113	124	93	90	106	100	83	99	90
12	Other forms of tuberculosis	282	19.8	22	23	31	28	27	26	18	22	15	22	23	25
13	Cancer	1,039	73.0	100	75	81	89	81	83	80	86	97	85	88	94
14	Rheumatism	159	11.2	17	15	24	14	13	8	11	10	11	13	10	13
15	Diabetes	157	11.0	19	15	16	8	11	16	12	14	12	10	9	15
16	Other general diseases	357	25.1	32	34	26	32	38	27	42	36	24	23	22	21
17	Simple meningitis	294	20.7	35	21	35	32	27	21	17	31	19	26	16	14
18	Cerebrospinal meningitis .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19	Cerebral congest'n and hem.	882	62.0	80	72	84	83	66	70	71	68	73	69	72	74
20	Paralysis	571	40.1	60	37	47	54	53	39	48	35	42	49	51	56
21	Convulsions of infants	293	20.6	18	22	29	29	33	22	32	15	19	21	26	27
22	Other nervous diseases	672	47.2	52	41	61	71	88	53	50	54	50	54	48	50
23	Organic heart disease	1,719	120.9	151	147	157	162	167	120	140	115	135	118	153	154
24	Other circulatory diseases ..	429	30.2	35	42	55	32	40	24	36	28	32	31	38	36
25	Bronchitis	431	30.3	44	47	74	59	47	11	12	27	22	31	23	34
26	Broncho-pneumonia	215	15.5	31	24	25	38	25	13	12	6	5	10	9	17
27	Pneumonia	1,166	82.0	134	150	205	204	107	54	37	22	22	56	63	112
28	Pleurisy	106	7.5	8	17	13	15	7	7	5	2	3	7	12	10
29	Other respiratory diseases ..	322	22.6	34	39	30	33	22	20	20	20	21	16	28	39
30	Stomach diseases	408	28.7	28	25	36	38	39	25	28	42	41	29	39	38
31	Infantile diarrhea	1,140	80.1	23	18	26	31	27	49	196	239	311	148	50	22
32	Diarrhea and enteritis	283	19.9	17	18	18	17	19	13	16	36	44	39	22	14
33	Dysentery	169	11.9	3	3	6	3	3	4	6	27	64	38	9	3
34	Liver diseases	404	28.4	33	31	46	39	40	28	42	28	35	29	24	29
35	Peritonitis	219	15.4	22	19	16	20	25	13	21	18	20	13	7	25
36	Iliac abscess	136	9.6	8	9	9	10	13	9	13	19	20	10	5	11
37	Other digestive diseases	290	20.4	18	23	23	27	17	16	23	20	26	34	26	27
38	Bright's disease	562	39.5	41	40	50	51	40	50	40	46	48	44	50	53
39	Other genito-urinary diseases ..	470	33.0	40	49	40	44	34	38	40	32	44	33	46	30
40	Puerperal diseases	250	17.6	15	27	31	29	27	17	12	17	19	17	18	21
41	Skin diseases	193	13.6	13	18	23	21	14	16	19	13	8	17	13	16
42	Diseases locomotor system ..	38	2.7	2	3	2	4	2	3	3	3	6	4	1	5
43	Malformations	110	7.7	8	1	10	10	11	7	7	14	8	11	9	14
44	Diseases of infancy	840	59.1	59	65	61	68	66	66	89	75	94	82	51	64
45	Diseases of old age	438	30.8	43	27	45	51	29	32	27	35	40	38	34	37
46	Suicide	154	10.8	18	6	10	17	17	12	14	15	13	13	6	15
47	Accidents	895	62.9	64	61	56	81	69	83	110	90	72	82	59	68
48	Homicide	6	0.4	1	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	1
49	Causes ill-defined	747	52.5	72	70	62	70	68	62	55	58	63	41	65	61

CAUSES OF DEATH.

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for the State and geographical sections, 1900.—Southern counties.

Ages of decedents, 1900.																								
Ages in years under five.					Ages by five-year periods.																			
0.	1.	2.	3.	4.	0 to 4.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 +.	Unk.	Live number.	
4,256	647	300	176	124	5,503	486	339	567	706	767	693	682	693	740	799	927	1136	1333	1566	1490	2024	35	1	1
769					769																		2	2
2	7	5	1	3	18	26	42	62	98	48	45	30	25	21	13	13	5	8	6	6	2	3	3	4
46	36	20	15	6	123	22	8	11	4	8	5	3	2	2		2		1					4	5
6	6	11	11	9	43	32	9	1				1	2										5	6
67	24	10	4	2	107	7																	6	7
25	35	39	28	26	153	87	25	10	4	2			1	2	1								7	8
16	3	1	2		22	2	2	1	3	8	15	10	10	12	8	20	23	32	35	56	75	8	9	
3	2		2		7		1	1	3	1		1	2			1		3	1		1	9		
4	3	4	2	3	16	3	2	14	6	5	6	6	5	3	4	3	3	10	8	8	7	10		
11	7	1	1	3	23	8	21	108	189	192	147	117	86	76	60	51	51	49	29	25	8	11		
23	12	7	2		44	15	11	24	32	27	18	19	20	14	18	14	9	10	2	1	4	12		
	3		3	2	8	2	1	3	3	14	26	37	68	104	96	131	118	138	133	91	66	13		
1				2	3	6	10	6	5	4	2	5	5	6	8	12	13	19	22	21	12	14		
				3	3	6	7	9	8	8	6	4	7	9	16	6	23	16	15	7	7	15		
58	5	4	2		69	6		7	20	14	31	25	19	27	28	25	27	19	20	10	8	2	16	
70	43	19	17	15	164	28	15	22	9	7	7	6	8	6	3	5	6	2	3	2	1	17		
28	5	3	2		38	5	4	6	5	7	9	23	32	38	51	59	91	112	157	122	123	19		
5	1	1	1	1	9	2	1		3	2	3	7	14	18	20	31	65	72	92	100	130	20		
265	20	6	2		293																	21		
49	15	5	3	1	73	15	15	20	19	27	24	38	38	38	41	40	56	55	54	64	52	3	22	
103	5	1		1	110	12	17	20	19	30	29	36	54	64	82	125	168	209	271	223	247	3	23	
8	2	1		3	14	7	8	13	4	17	11	6	15	23	27	27	43	56	66	46	46	24		
126	32	15	6		179	7	2	4	5	3	1	2	6	6	6	10	17	30	34	44	75	25		
90	27	14	3	2	136	9	1		1	2	1	2	2	3	4	1	11	7	9	14	12	26		
200	75	30	17	10	332	40	20	33	32	40	47	50	34	54	57	54	62	64	75	88	84	27		
3	1	2		1	7	1	4	4	4	11	8	7	4	11	6	7	4	6	4	10	28			
49	7	6	3		65	6	8	5	4	11	12	6	17	9	9	23	18	24	25	32	47	1	29	
98	14	3	2	3	120	1	2	3	5	9	10	12	5	11	12	29	31	37	34	38	49	30		
896	167	53	14	10	1,140																	31		
																						32		
29	16	10	2	1	58	3		1	1	1	3	2	2		4	6	5	15	17	18	32	1	33	
13	2	3			18	4	6	5	5	10	11	10	21	27	40	39	54	48	56	22	27	134		
12	4	1	3	1	21	12	6	21	27	24	21	21	12	11	5	6	5	12	3	5	5	2	35	
1	2		2	1	6	12	22	20	9	15	13	14	7	5	4	2	3	2		2		36		
47	11	3	8	3	72	11	5	6	16	15	6	9	8	11	14	12	23	20	26	19	17	37		
4	1			1	6	4	3	9	10	13	15	20	30	29	45	50	53	71	71	72	60	1	38	
13	3	2		1	19	9	6	5	14	18	23	32	27	19	20	22	26	38	55	54	83	39		
								19	43	80	55	35	16	2								40		
28	3	1	2	1	35	2		3	3	4	7	4	7	13	8	9	12	14	25	20	27	41		
10	2				12		3	3	3	3		5		1	2		1	4		1		42		
100	8		1		109	1																43		
827	8	2	1	2	840																	44		
																1	2	10	15	47	78	285	45	
								8	17	13	10	11	11	10	13	16	14	10	12	4	4	1	46	
68	23	17	13	6	127	38	44	66	59	55	48	47	51	37	36	38	39	27	39	36	95	13	47	
								1	2		1	1				1						48		
83	7		1	1	92	4	2	6	5	12	7	10	11	14	18	23	28	57	81	119	253	5	49	

CAUSES OF DEATH.

lx

36	Illiac abscess.....	9.1	5.5	3.8	6.8	5.3	13.9	9.7	12.8	6.7	5.8	5.9	9.1	.....
37	Other digestive diseases.....	19.2	230.8	65.2	5.7	30.3	4.0	10.2	6.4	13.3	25.3	50.8	105.1	148.4
38	Bright's disease.....	35.2	11.1	3.1	4.2	3.6	3.7	11.7	18.3	33.0	94.3	155.1	347.8	526.1
39	Other genito-urinary diseases.....	29.3	72.0	19.2	5.7	12.4	4.8	14.0	25.0	26.3	29.0	76.3	289.8	674.5
40	Puerperal diseases.....	18.7	.....	.....	.....	.....	8.1	50.9	46.6	14.1	0.5	.....	.....	.....
41	Skin diseases.....	12.2	116.3	26.9	0.8	13.7	1.0	3.1	5.8	9.6	15.3	32.2	103.3	242.8
42	Diseases locomotor system.....	2.4	40.6	8.8	.....	4.4	1.5	1.4	1.5	0.7	2.6	5.1	5.4	.....
43	Malformations.....	8.5	369.3	78.3	0.8	39.3	.....	.....	.....	.....	.....	.....	.....	.....
44	Diseases of infancy.....	59.5	2,047.7	552.8	.....	274.6	.....	.....	.....	.....	.....	.....	.....	.....
45	Diseases of old age.....	27.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
46	Suicides.....	.....	.....	.....	.....	.....	2.3	9.7	8.4	10.7	2.1	30.5	351.4	2,947.7
47	Accidents.....	71.9	283.6	89.8	33.7	61.6	48.7	65.6	66.1	65.6	19.5	28.0	38.0	54.0
48	Homicides.....	0.6	.....	0.8	.....	0.4	0.4	1.2	0.9	0.4	72.1	87.3	202.9	786.0
49	Causes ill-defined.....	59.3	658.4	141.9	4.9	73.0	2.9	7.6	11.4	18.5	35.3	117.8	570.6	2,570.0

* Stillbirths not included.

† These rates should be doubled, approximately, to show the rate per 100,000 females of each age.

DEATH RATES BY DECENNIAL AGE PERIODS, 1900.

In Table 19 may be found some of the most important characteristics of the mortality of Michigan for the year 1900. The rates are based, not on the total population of the State at all ages, but on the population for 1900 at each decennial period, so that the deaths are compared directly with the element of population affording them. Study of the data thus analyzed is more satisfactory for many purposes than the mere comparison of the crude death rates at all ages uncorrected for age distribution.

The basis of 100,000 population has been chosen for these rates, as for all other rates of causes of death in this report, because of its special convenience. By moving the decimal point one place to the left, rates per 10,000 population, correct to two decimal places, are obtained, while by dispensing with the decimal point entirely we have rates per million as used in the English registration reports. The death rates of the totals are allowed to stand as rates per 100,000, corresponding to the summation of the rates for individual causes of death under each head, but for convenience, in ordinary comparisons, the decimal point should be shifted two places to the left, thus giving us the customary rates per 1,000. This is the practice of some excellent statisticians in regard to the statement of deaths from individual diseases, but on account of the number of places of decimals required, would not seem as convenient as the method here employed.

As compared with the corresponding table in the report for the preceding year, the rate for all ages is a little lower for 1900. For the lower age periods, there is an increase in the rate, while for the higher age periods there is a decrease. Comparing the rates for 1898 and 1899, there is a general increase for the year 1899 for each age period. The year 1898 was a year of exceptionally favorable conditions in regard to the lowness of the death rate, so that the increase of mortality at each period of life in 1899 does not necessarily indicate any especially unhealthy characteristics of the latter year, which, in fact, except for the epidemic prevalence of influenza during the early months, was very favorable.

The only age period for which the rate in 1900 was less than the rate in 1898 was for the period, 80 years and over. In view of the fact that 1898 was a year of such exceptionally favorable conditions, this decrease in the rate for the period, 80 years and over, in 1900, is quite noticeable.

The death rate from all causes at all ages rose from 12.0 per 1,000 population in 1898 (1,199.0 per 100,000 population), exclusive of stillbirths, to 13.5 per 1,000 (1,353.4 per 100,000 population) in 1899, and fell to 13.4 (1,340.5 per 100,000 population). Under one year of age, the mortality rose from 88.4 per 1,000 estimated living infants under one year of age in 1898 to 99.6 in 1899, and to 152.0 in 1900; this ratio is not as satisfactory as the preferable statement of "infant mortality," based upon the comparison of deaths of infants under one year per thousand living births, but the absence of any accurate registration of births in this State renders the latter ratio unobtainable. The rate per 1,000 population under one year of age is peculiarly liable to error owing to the inaccuracies of the census enumerations at this age. It

should also be remembered in comparing the rates for these three years that the populations used for 1898 and 1899 are estimated on the increase in population between 1890 and 1894; and the populations used for 1900 are those returned for the year 1900 by the United States census.

The death rate of children under five years of age per 1,000 estimated population of the same age rose from 26.0 in 1898 to 29.8 in 1899, and to 36.2 in 1900. The death rate of children aged 5 to 9 years, both inclusive, rose from 2.8 to 3.2 per 1,000 in the same time, and to 3.6 in 1900.

DISCUSSION OF INDIVIDUAL CAUSES OF DEATH, 1900.

The following text is devoted to the discussion of the most important individual diseases and groups of diseases according to the condensed list as shown in Tables 18 and 19. Table 18 indicates the distribution of deaths, by geographical divisions, and Table 19 shows the death rates by age periods for each of the titles covered. A somewhat condensed list seemed desirable for the purposes of this discussion, rather than the full Bertillon classification. The inclusion of each title is the same as given in the last report, so that comparisons can readily be made with the detailed classification.

A feature of the descriptive text is the comparison of the mortality statistics of the three years, 1898, 1899 and 1900, the first three complete years compiled under the new registration law. Any detailed comparisons with previous years, when the data were obtained from the incomplete and extremely unsatisfactory enumeration of deaths by supervisors, would be of little benefit, hence the series of deaths and death rates for previous years under the old law has been omitted. In time we shall possess a fairly reliable series of death rates, and therefrom may be able to derive a normal or average mortality for each disease which will be exceedingly convenient and important in practical sanitary use. But it should be remembered, for the present, that this is only the *third* fairly accurate registration report ever published by the State of Michigan, and hence general conclusions as to the general mortality, month and age distribution, etc., of any particular disease, or as to the relative standing of various diseases as causes of death, should not be too hastily drawn on such a limited basis of experience.

Stillbirths continue to be presented in connection with total deaths, both in Table 18 and in the primary tables of deaths (Table III, p. 20, etc.). They are not included in the rates by age periods given in Table 19. Their inclusion with deaths, contrary to the prevailing practice of statisticians and the requirements of the Bertillon classification which is otherwise followed in this report, arose from the fact that they are most largely registered as deaths and in every respect conform to the requirements of the law for that purpose. It is important for registrars to insist that stillbirths shall be registered in the same way as deaths from any other cause. Of course, properly speaking, the return of "still-born" does not explain the cause, more than "infantile" or "old age," but it is not likely that a very great degree of discrimination as regards the actual causes of death of stillborn children will come into general practice in this country, except, perhaps, in a few cities where special attention

is given to the subject. It will, perhaps, be preferable, if we ever obtain a satisfactory registration law for births in this State, to provide for their registration as births, or as a separate class of births. It may be necessary even then to insist on a double registration both as births and as deaths, with a correspondingly increased fee to the registrar, in order to secure the utmost accuracy in this very important and usually greatly neglected class of returns.

Of course what has been suggested applies solely to the method of collecting, not of compiling, stillbirths. In any case they should be given in separate tables, apart from births and deaths, and where they can conveniently be added to births when it is desired to study the subject of fecundity, without respect to the number of living children born only, and to deaths, especially those stillbirths whose causes are given, when it is desired to include a statement of the total mortality, antenatal as well as of children born alive, from certain diseases. The U. S. census of 1900 has removed stillbirths from the regular tables of deaths, and, beginning with the registration report of Michigan for 1901, which will mark the introduction of the revised International Classification of Causes of Death in these reports, we shall cease to include stillbirths among births or deaths, but assign them to a separate place in the report.

TYPHOID FEVER.

Occurrence in Michigan, 1900.—There were 869 deaths registered from typhoid fever for the year 1900, or 35.9 per 100,000 population as enumerated by the U. S. census. The distribution of these deaths is shown by months, sex and age periods in Table 20.

The month of maximum mortality from this cause was, for the State as a whole, October, with 168 deaths, and the minimum number occurred in April, which month had only 21 deaths.

By geographical sections, the largest number of deaths, 468, occurred in the Southern counties and the smallest number, 105, in the Upper Peninsula. Based on population, the largest death rate, 44.5 per 100,000 population, was that of the Northern counties, and the smallest, 32.9 per 100,000 population, was for the Southern counties.

By sex, there were 510 deaths of males and 359 deaths of females. The general age distribution of deaths by ten-year periods gives the largest number, 264, in the period of 20 to 29 years, both inclusive. As the age distribution of the population varies greatly at the different age periods, a more satisfactory comparison is that given by the death rates per 100,000 inhabitants of the same age in Table 19. According to this table, the maximum mortality, 62.8 per 100,000 population of same age, was for the age period 20 to 29 years, and the minimum mortality, 16.8 per 100,000, was for the population under ten years of age.

Comparison of 1900 with 1899 and 1898.—The deaths returned from typhoid fever in 1900 considerably exceed those registered for the preceding years, the numbers being 869, 580 and 572, respectively. The death rate per 100,000 population rose from 24.3 in 1898 and 1899 to 35.9 in 1900. The increase was general throughout the State, the Upper Peninsula alone showing a slight reduction in mortality from 1899 to 1900.

Table 20.—Deaths from typhoid fever in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	869	35.9	52	32	34	21	30	30	33	65	138	168	145	121
I. Upper Peninsula.....	105	40.2	7	4	4	.....	2	2	2	7	14	28	21	14
II. Northern counties...	132	44.5	7	2	1	2	7	2	.....	9	24	33	25	20
III. Central counties...	164	37.2	12	6	9	2	6	4	6	13	25	32	26	23
IV. Southern counties...	468	32.9	26	20	20	17	15	22	25	36	75	75	73	64
Deaths by sex, 1900.		Deaths by ages, 1900.*												
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.	
510	359	5	39	49	88	206	264	138	87	43	23	14	5	

* Includes one at unknown age.

MEASLES.

Occurrence in Michigan, 1900.—There were 342 deaths registered from measles in Michigan during the year 1900, or 14.1 per 100,000 population as enumerated by the U. S. census. The distribution of these deaths is shown by months, sex and age periods in Table 21.

The highest mortality from this cause, for the State as a whole, was in the month of March, when 71 deaths occurred, and the smallest number was in the month of September, when only 2 deaths were reported from this cause.

Considered by geographical sections, the largest number of deaths was in the Southern counties, namely, 191, and the smallest number in the Upper Peninsula, namely, 22. Based on population, the highest death rate from this cause, 21.9 per 100,000 population, was in the Northern counties, and the lowest, 8.4, was for the Upper Peninsula.

Classified by sex, there was an equal number of deaths of males and females reported for the year, namely, 171. By age distribution there were 87 deaths of infants under 1 year, 229 deaths of children under 5 years, 35 deaths in the period 5-9 years, inclusive. From this point the deaths from this cause gradually diminish in number until in the age period 60-69 years only 1 death is reported. As the age distribution of the population varies greatly at the different age periods, a more satisfactory comparison is found in Table 19 which gives the death rates per 100,000 population of the same age periods. From an examination of this table it will be noted that the maximum mortality, 288.0 per 100,000 population of same age, was for the period under 1 year; the rate for the period 0-4 years was 87.9; for the period 5-9 years, 13.3, and from this point the rate gradually decreases until the minimum is reached in

the period 60-69 years, 0.8. For the period under 10 years the rate was 50.3 per 100,000 population.

Comparison of 1900 with 1899 and 1898.—The deaths returned from measles in 1900 considerably exceed those registered for the preceding years, the numbers being 342, 187 and 131, respectively. The death rate per 100,000 population rose from 5.6 in 1898 to 7.8 in 1899 and to 14.1 in 1900. The increase was general throughout the Lower Peninsula; the Upper Peninsula, however, shows a slight reduction in mortality from both 1898 and 1899.

Table 21.—Deaths from measles in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	342	14.1	41	53	71	62	51	24	17	6	2	4	8	3
I. Upper Peninsula.....	22	8.4	6	5	3	1	1	2	.....	.....	.....	.....	3	1
II. Northern counties...	65	21.9	6	9	12	5	13	9	7	2	.....	1	1	.....
III. Central counties...	64	14.5	4	7	9	16	12	4	4	3	.....	2	2	1
IV. Southern counties...	191	13.4	25	32	47	40	25	9	6	1	2	1	2	1

Deaths by sex, 1900.		Deaths by ages, 1900.											
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
171	171	87	229	35	264	32	21	13	8	3	1	.....	.....

SCARLET FEVER.

Occurrence in Michigan, 1900.—There were 272 deaths reported from scarlet fever in Michigan for the year 1900, or 11.2 per 100,000 population as enumerated by the U. S. census. The distribution of these deaths is shown by months, sex and age periods in Table 22.

For the State as a whole, the maximum mortality from this cause was for the month of December, namely, 38, and the minimum number occurred during the month of August when only 14 deaths were reported.

By geographical sections, the largest number of deaths, 93, occurred in the Upper Peninsula, and the smallest number, 37, in the Northern counties. Based on population, the highest death rate was 35.6 for the Upper Peninsula, and the lowest, 6.2, for the Southern counties.

By sex, there were 138 deaths of males, 133 deaths of females and 1 death with sex not stated. As might be expected, the general distribution of deaths by age periods gives by far the largest number in the period under 10 years, namely, 238. The period 5-9 years, both inclusive, has 87 deaths, and the period under 5 years 151 deaths. As the age distribution of the population varies greatly at the different age periods,

however, a more satisfactory comparison is that given by the death rates per 100,000 inhabitants of the same age in Table 19. According to this table, the maximum mortality, 88.6, was for the period under 1 year, and the minimum mortality was the same for the two periods 20-29 and 40-49 years, each having a rate of 0.7 per 100,000 population of the same age.

Comparison of 1900 with 1899 and 1898.—The deaths returned from scarlet fever in 1900 considerably exceed those registered for the preceding years, the numbers being 272, 144 and 91, respectively. The death rate per 100,000 population rose from 3.9 in 1898 to 6.0 in 1899 and 11.2 in 1900. The increase was general throughout the State, the Upper Peninsula, especially, with a rate of 35.6, showing a marked increase over both the years 1898, with a rate of 1.9 and 1899 with a rate of 14.7.

Table 22.—Deaths from scarlet fever in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	272	11.2	20	24	26	22	18	20	19	14	19	26	26	38
I. Upper Peninsula.....	93	35.6	2	7	5	10	9	9	7	5	8	9	9	13
II. Northern counties...	37	12.5	6	4	4	1	2	2	5	1	2	1	4	5
III. Central counties...	54	12.3	5	6	5	3	2	2	3	5	2	9	6	6
IV. Southern counties...	88	6.2	7	7	12	8	5	7	4	3	7	7	7	14

Deaths by sex, 1900.*		Deaths by ages, 1900.†											
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
138	133	21	151	87	238	22	3	4	2	.....	.....	.....	.....

* One with sex not stated.

† Includes 3 at unknown age.

WHOOPIING COUGH.

Occurrence in Michigan, 1900.—There were 208 deaths returned from whooping cough for the year 1900, or 8.6 per 100,000 population as enumerated by the U. S. census. The distribution of these deaths is shown by months, sex and age periods in Table 23.

For the State as a whole, the month of maximum mortality from this cause was May, with 33 deaths, and the minimum mortality was for November, when only 3 deaths were reported.

By geographical sections, the largest number of deaths, 114, occurred in the Southern counties, and the smallest number, 22, in the Northern counties. Based on population, the largest death rate, 11.9 per 100,000 population, was that of the Upper Peninsula, and the smallest, 7.4, was for the Northern counties.

Classified by sex, there were 95 deaths of males and 113 deaths of females. The occurrence of deaths from this cause was solely in the period under 10 years, the period under 5 years having 199 deaths, and the period 5-9 years having 9 deaths. As the age distribution of the population varies greatly at the different age periods, a more satisfactory comparison is that given by the death rates per 100,000 population of the same age in Table 19. From this table, it will be noted that the maximum mortality, 317.6 per 100,000 population of same age was for the period under 1 year, and the minimum mortality, 3.4 was for the period 5-9 years, the period 0-9 years having a rate of 39.6, and the period 0.4 years, 76.3.

Comparison of 1900 with 1899 and 1898.—The deaths reported from whooping cough in 1900 were fewer than for both the preceding years, the figures being 208, 238 and 282, respectively. The death rate per 100,000 population dropped from 12.0 in 1898 to 10.0 in 1899 and 8.6 in 1900. The decrease was general throughout the State for these years, the only exception being that there were 114 deaths in the Southern counties in 1900 and 100 in the same section for 1899.

Table 23.—Deaths from whooping cough in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	208	8.6	17	16	27	21	33	24	23	18	13	7	3	6
I. Upper Peninsula.....	31	11.9	2	3	2	6	8	1	5	2	1	1	.....	.....
II. Northern counties...	22	7.4	3	1	4	.....	2	2	2	4	3	.....	.....	1
III. Central counties...	41	9.3	2	2	7	4	4	5	4	6	3	.....	3	1
IV. Southern counties...	114	8.0	10	10	14	11	19	16	12	6	6	6	.....	4

Deaths by sex, 1900.		Deaths by ages, 1900.											
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
95	113	135	199	9	208	.....	.....	.....	.....	.....	.....	.....	.....

DIPHTHERIA AND CROUP.

Occurrence in Michigan, 1900.—There were 529 deaths from diphtheria and croup in Michigan during the year 1900, corresponding to a death rate of 21.9 per 100,000 population. The distribution of these deaths is shown by months, sex and age periods in Table 24.

For the State as a whole, the month of November had the largest number of deaths, namely, 91, and the month of July the smallest number, 11.

Considered by geographical sections, the largest number of deaths from this cause was in the Southern counties, 285, and the smallest num-

ber, 55, in the Northern counties. Based on population, the largest death rate was in the Central counties, which had a rate of 27.2 per 100,000 population, and the lowest, 18.5 per 100,000 population was in the Northern counties.

By sex, there were 255 deaths of males and 274 deaths of females. The general age distribution of deaths by periods gives the largest number in the period under 5 years, 274, the period 5-9 years having 164, and the ten-year period, 10-19 years, 76. After this period the number of deaths rapidly decreased. As the age distribution of the population varies greatly at the different age periods, a more satisfactory comparison is that given by the death rates per 100,000 inhabitants of the same age in Table 19. According to this table, the maximum mortality, 193.9 per 100,000 population of same age, was for the period under 1 year and the minimum mortality, 0.3 per 100,000, was for the population 30-39 years.

Comparison of 1900 with 1899 and 1898.—The deaths returned from diphtheria and croup in 1900 considerably exceed those returned for the preceding years, the figures being 529, 435 and 456, respectively. The death rate per 100,000 population dropped from 19.4 in 1898 to 18.2, but rose again for the year 1900 to 21.9. As compared with the preceding years, the death rates for the year 1900, by geographical sections, exceeded those for 1898 in the Central and Southern counties, but were lower for the Upper Peninsula and Northern counties. Compared with 1899, they were higher for all sections of the State, except in the Southern counties.

Table 24.—Deaths from diphtheria and croup in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	529	21.9	71	47	35	32	25	24	11	18	44	64	91	67
I. Upper Peninsula.....	69	26.4	14	4	6	4	2	5	3	2	5	5	12	7
II. Northern counties...	55	18.5	7	5	4	3	5	3	2	1	2	6	8	9
III. Central counties...	120	27.2	12	14	6	6	8	5	.....	7	17	15	16	14
IV. Southern counties...	285	20.0	38	24	19	19	10	11	6	8	20	38	55	37

Deaths by sex, 1900.		Deaths by ages, 1900.											
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
255	274	49	274	164	438	76	8	1	4	2	.....	.....	.....

INFLUENZA.

Occurrence in Michigan, 1900.—There were 500 deaths returned from influenza in Michigan during the year 1900, corresponding to a death rate of 20.7 per 100,000 population as enumerated by the U. S. census. The for 1898 was slightly higher than for 1900.

distribution of these deaths is shown by months, sex and age periods in Table 25.

The greatest mortality from this cause, for the State as a whole, occurred during the month of April, with 117 deaths, and the smallest mortality was for the months of August and October with 6 each.

By geographical sections, the largest number of deaths from this cause, 334, occurred in the Southern counties, and the smallest number, 23, occurred in the Upper Peninsula. Based on population, the largest death rate, 23.5 per 100,000 population, was in the Southern counties, and the smallest, 8.8, was in the Upper Peninsula.

By sex, there were 230 deaths of males and 270 deaths of females. The general age distribution of deaths by ten-year periods gives the largest number, 137, in the period 70-79 years, both inclusive. As the age distribution of the population varies greatly at the different age periods, a more satisfactory comparison is that given by the death rates per 100,000 inhabitants of the same age in Table 19. From this table, it will be noted that the maximum mortality, 627.3, was in the period over 80 years of age. Its decrease is rapid for the next two lower periods and then gradual until the period 10-19 years is reached, when it is only 2.3, which is the minimum mortality for the year. The mortality for infants under 1 year from this cause is 79.4.

Comparison of 1900 with 1899 and 1898.—Owing to an epidemic of influenza which swept over this State during the spring of 1899, the mortality from this cause for this year, 1,673, was very greatly in excess of that for either of the years 1898, with only 455 deaths and 1900 with its 500 deaths. The death rate per 100,000 population dropped from 70.1 in 1899 to 20.7 for 1900 and 19.4 for 1898. The decrease from 1899 as compared with 1898 and 1900 was very marked throughout the entire State. However, comparing 1900 with 1898, there was a slight increase over the latter year, with the exception of the Southern counties, when the rate

Table 25.—Deaths from Influenza in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	500	20.7	54	64	107	117	62	20	14	6	10	6	11	29
I. Upper Peninsula.....	23	8.8	5	.....	3	5	6	3	1	.....	.....	.....	.....	.....
II. Northern counties...	51	17.2	2	13	12	9	6	2	2	1	1	1	.....	2
III. Central counties...	92	20.9	12	10	31	13	12	5	2	.....	.....	1	2	4
IV. Southern counties...	334	23.5	35	41	61	90	38	10	9	5	9	4	9	23
Deaths by sex, 1900.		Deaths by ages, 1900.*												
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.	
230	270	36	52	6	58	11	23	31	30	42	73	137	93	

* Ten-year age groups.

MALARIA.

Occurrence in Michigan, 1900.—There were 172 deaths registered from malaria in Michigan for the year 1900, or 7.1 per 100,000 population as enumerated by the U. S. census. The distribution of these deaths is shown by months, sex and age periods in Table 26.

For the State as a whole, the maximum mortality from this cause was for the month of October when 27 deaths occurred, and the minimum was for the month of January, with only 3 deaths.

By geographical sections, the largest number of deaths, 109, occurred in the Southern counties, while for the Upper Peninsula there were no deaths from this cause during the year. Based on population, the largest death rate, 9.1 per 100,000 population, was in the Central counties, and the smallest, outside the Upper Peninsula, which, of course, had no death rate, 7.7, occurred in the Southern counties.

By sex, there were 83 death of males and 89 deaths of females. The general age distribution of deaths by ten-year periods gives the largest number, 30, in the period 20-29 years. As the age distribution of the population varies greatly at the different age periods, a more satisfactory comparison is that given by the death rates per 100,000 inhabitants of the same age in Table 19. According to this table, the maximum mortality, 60.7, occurred in the period over 80 years, and the minimum mortality for ten-year periods was in the period 10-19 years, which was 4.4 per 100,000 inhabitants of the same age. The rate for the period 5-9 years was 1.9 and for the period under 1 year, 20.3.

Comparison of 1900 with 1899 and 1898.—The deaths returned from malaria in 1900 slightly exceeded those for 1899, but were somewhat fewer than those returned for 1898, the figures being 172, 145, 175, respectively. The death rate per 100,000 population dropped from 7.4 in 1898 to 6.1 in 1899, but rose again in 1900 to 7.1.

Table 26.—Deaths from malaria in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	172	7.1	3	11	9	6	13	10	10	16	26	27	24	17
I. Upper Peninsula.....														
II. Northern counties...	23	7.8	.....	2	1	.....	1	.....	.....	4	2	4	5	4
III. Central counties...	40	9.1	.....	2	4	1	5	4	4	1	6	4	4	5
IV. Southern counties...	109	7.7	3	7	4	5	7	6	6	11	18	19	15	8
Deaths by sex, 1900.			Deaths by ages, 1900.											
Males.	Females.		Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
83	89		7	23	5	28	21	30	18	14	12	18	22	9

PULMONARY TUBERCULOSIS.

Occurrence in Michigan, 1900.—There were 2,018 deaths returned from pulmonary tuberculosis for the year 1900, corresponding to a death rate of 83.4 per 100,000 population as enumerated by the U. S. census. The distribution of these deaths is shown by months, sex and age periods in Table 27.

The greatest mortality from this cause was, for the State as a whole, May, with 205 deaths, and the smallest number occurred in the month of October, which month had 140 deaths.

By geographical sections, the largest number of deaths occurred in the Southern counties, which had 1,240 deaths, and the smallest number, 209, occurred in the Upper Peninsula. Based on population, the largest death rate was that for the Southern counties, 87.2 per 100,000 population, and the smallest, 75.8, in the Northern counties.

By sex, there were 884 deaths of males and 1,134 deaths of females. The general age distribution of deaths by ten-year periods gives the largest number, 651, as occurring in the period 20-29 years, both inclusive. As the age distribution of the population varies greatly at the different age periods, a more satisfactory comparison is that given by the death rates per 100,000 inhabitants of the same age in Table 19. From this table we note that the highest rate was in the period 20-29 years, being 154.8 per 100,000 inhabitants of the same age, and the lowest rate, by ten-year periods, is found in the period under 10 years, being 13.3. The rate for the period 5-9 years is 5.3 and under 1 year 75.7 per 100,000.

Comparison of 1900 with 1899 and 1898.—The deaths returned from pulmonary tuberculosis in 1900 were considerably fewer than in either of the preceding years, the numbers being 2,018, 2,098 and 2,153, respectively. The death rate per 100,000 population dropped from 91.6 in 1898 to 87.9 in 1899 and still further dropped to 83.4 in 1900.

Table 27.—Deaths from pulmonary tuberculosis in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	2,018	83.4	168	180	202	187	205	161	158	150	150	140	158	150
I. Upper Peninsula.....	209	80.0	25	19	19	19	21	16	22	14	11	11	16	16
II. Northern counties...	225	75.8	20	19	21	18	27	23	19	14	18	13	17	16
III. Central counties...	344	78.1	26	35	33	37	33	29	27	16	30	33	26	19
IV. Southern counties...	1,240	87.2	97	107	129	113	124	93	90	106	100	83	99	99
Deaths by sex, 1900.			Deaths by ages, 1900.*											
Males.	Females.		Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
884	1,134		29	56	14	70	240	651	422	263	159	134	68	10

* One at unknown age.

OTHER FORMS OF TUBERCULOSIS.

Occurrence in Michigan, 1900.—There were 460 deaths compiled from other forms of tuberculosis in Michigan during the year 1900, corresponding to a death rate of 19.0 per 100,000 population as enumerated by the U. S. census. The distribution of these deaths by sex, months and age periods is shown in Table 28.

For the State as a whole, the maximum mortality occurred during the month of March, namely, 53, and the minimum number, 29, in February.

Considered by geographical sections, the largest number of deaths, 282, was in the Southern counties, and the smallest number, 36, in the Northern counties. Based on population, the highest mortality from this cause was in the Upper Peninsula, which had a death rate of 23.7 per 100,000 population, and the lowest was in the Northern counties, with a death rate of only 12.1.

Classified by sex, there were 227 deaths of males and 233 deaths of females. The general age distribution of deaths by ten-year periods shows that the greatest number of deaths was in the period under 10 years, namely, 138. There were 102 deaths of children under 5 years of age. As the age distribution of the population varies greatly at the different age periods, a more satisfactory comparison is found in Table 19, which gives the death rates per 100,000 inhabitants of the same age. By ten-year periods, the greatest mortality was in the period 0-9 years, namely, 26.3. This, however, was exceeded by the mortality in the period over 80 years, 27.0 per 100,000 persons of the same age, and in the period under 1 year, which had a rate of 138.5.

Table 28.—Deaths from other forms of tuberculosis (than pulmonary) in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	460	19.0	37	29	53	41	35	38	36	37	43	40	35	36
I. Upper Peninsula.....	62	23.7	4	3	8	2	3	5	4	6	11	5	5	6
II. Northern counties...	36	12.1	4	.....	4	2	1	1	5	4	7	3	2	3
III. Central counties...	80	18.2	7	3	10	9	4	6	9	5	10	10	5	2
IV. Southern counties...	282	19.8	22	23	31	28	27	26	18	22	15	22	23	25

Deaths by sex, 1900.		Deaths by ages, 1900.											
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
227	233	47	102	36	138	68	85	56	47	41	26	5	4

Comparison of 1900 with 1899 and 1898.—Comparing the statistics of mortality found in Table 28 with the corresponding table of the two

preceding years, we note that the deaths returned in 1900 were much less than in either of the preceding years, the figures being 460, 596 and 673, respectively. The death rate per 100,000 population dropped from 28.6 in 1898 to 25.0 in 1899 and still further decreased to 19.0 in 1900. The decrease in mortality of 1900 from the preceding years was general throughout all sections of the State.

CANCER.

Occurrence in Michigan, 1900.—There were 1,460 deaths compiled from cancer in Michigan during the year 1900, corresponding to a death rate of 60.3 per 100,000 population as enumerated by the U. S. census. The distribution of these deaths is shown by months, sex and age periods in Table 29.

For the State as a whole, the maximum mortality from this cause, 137, was in the month of September, and the minimum mortality was in the month of May, which had 110 deaths.

Considered by geographical sections, the greatest mortality was in the Southern counties, which section had 1,039 deaths, and the least was in the Upper Peninsula with only 87 deaths. Stated as death rates per 100,000 population, the highest mortality from this cause, 73.0, was in the Southern counties, and the lowest, 33.3, was in the Upper Peninsula.

Classified by sex, there were 599 deaths of males and 861 deaths of females. The general age distribution of deaths by ten-year periods shows that the largest number, 368, occurred in the period 60-69 years, both inclusive. For the two periods preceding this one, and the one following, it will be noted that the mortality does not fluctuate very widely, but for the earlier periods there is a marked and rapid decrease in mortality, until the period, infants under 1 year, is reached, which has only 1 death. As the age distribution of the population varies greatly at the different age periods, a more satisfactory comparison is found in Table 19, which gives the death rates per 100,000 population of the same age. From this table it will be found that the highest rate of mortality is in the period over 80 years. The decrease in the rates from this period is quite rapid until the periods 0-9 and 10-19 years are reached, which have a rate of only 2.9 each, per 100,000 persons of the same age.

Comparison of 1900 with 1899 and 1898.—Comparing the statistics of mortality for 1900, as found in Table 29, with the corresponding data of the two preceding years, it will be noted that there was a considerable increase of deaths from this cause over the other two years, the figures being 1,460, 1,334 and 1,321. The death rate per 100,000 population dropped from 56.2 in 1898 to 55.9 in 1899, but rose again in 1900 to 60.3. The mortality in the Southern counties shows an increase over the two preceding years, and, in the Central counties, a slight decrease over the other years. In the Northern counties, the mortality for 1900 exceeds that for the same section in 1898, but is less than for 1899; for the Upper Peninsula, the mortality for 1900, 87, exceeds that for 1899, 76, but is in turn exceeded by that for 1898, 99 deaths.

CAUSES OF DEATH.

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Table 29.—Deaths from cancer in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	1,460	60.3	133	114	114	132	110	115	116	124	137	113	125	127
I. Upper Peninsula.....	87	33.3	5	7	8	9	9	9	6	8	13	2	4	7
II. Northern counties...	105	35.4	12	11	7	12	4	7	13	9	6	9	7	8
III. Central counties...	229	52.0	16	21	18	22	16	16	17	21	21	17	26	18
IV. Southern counties...	1,039	73.0	100	75	81	89	81	83	80	86	97	85	88	94

Deaths by sex, 1900.		Deaths by ages, 1900.*											
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
599	861	1	12	3	15	14	28	85	238	351	368	280	79

* Two with age not stated.

RHEUMATISM.

Occurrence in Michigan, 1900.—There were 243 deaths registered from rheumatism for the year 1900, or a death rate of 10.0 per 100,000 population as enumerated by the U. S. census. The distribution of deaths by months, sex and age periods is shown in Table 30.

The month of maximum mortality from this cause was, for the State as a whole, March, with 34 deaths, and the minimum number occurred in June, which month had 13 deaths.

Considered by geographical sections, the largest number of deaths, 159, occurred in the Southern counties, and the smallest number, 14, in the Upper Peninsula. Based on population, the largest death rate, per 100,000 population, was in the Southern counties, namely, 11.2, and the smallest, 5.4, was in the Upper Peninsula.

Classified by sex, there were 124 deaths of males and 119 deaths of females. The general age distribution of deaths by ten-year periods gives the largest number, 58, in the period 70-79 years, both inclusive. As the age distribution of the population varies greatly at the different age periods, a more satisfactory comparison is that given by the death rates per 100,000 inhabitants of the same age in Table 19. According to this table, the maximum mortality, 128.2, occurs in the period over 80 years, and the minimum mortality, 2.9 per 100,000 persons of the same age, in the two periods 0-9, both inclusive, and 20-29 years.

Comparison of 1900 with 1899 and 1898.—The deaths returned from rheumatism in 1900 are less than those for 1899, but considerably exceed those for 1898, the numbers being 243, 276 and 205, respectively. The death rate per 100,000 population rose from 8.7 in 1898 to 11.6 in 1899, but dropped back again to 10.0 in 1900. The mortality for 1900 is ex-

ceeded for the Upper Peninsula, the Central and Southern counties by that of the year 1899. It exceeds the mortality for 1898 in all but the Central counties.

Table 30.—Deaths from rheumatism in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	243	10.0	24	19	34	20	34	13	19	23	14	19	17	17
I. Upper Peninsula.....	14	5.4	1	3	2	1	.....	.....	.....	2	1	1	2	1
II. Northern counties...	30	19.1	1	.....	4	2	6	3	4	4	1	3	1	1
III. Central counties...	40	9.1	5	1	4	3	5	2	4	7	1	2	4	2
IV. Southern counties...	159	11.2	17	15	24	14	13	8	11	10	11	13	10	13

Deaths by sex, 1900.		Deaths by ages, 1900.											
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 19 years.	19 to 29.	29 to 39.	39 to 49.	49 to 59.	59 to 69.	69 to 79.	79 to 89.	89 and over.
124	119	2	4	11	15	34	12	11	17	30	47	58	19

DIABETES.

Occurrence in Michigan, 1900.—There were 224 deaths registered from diabetes mellitus in Michigan during the year 1900, corresponding to a death rate of 9.3 per 100,000 population as enumerated by the U. S. census. The distribution of these deaths is shown by months, sex and age periods in Table 31.

For the State as a whole, the month of greatest mortality was January with 29 deaths, and the month of least mortality was April with 11 deaths.

Considered by geographical sections, the maximum mortality from this cause occurred in the Southern counties, 157, and the minimum number in the Northern counties, namely, 11. Based on population, the highest death rate was 11.0 per 100,000 population, in the Southern counties, and the lowest, 3.7, in the Northern counties.

Classified by sex, there were 126 deaths of males and 98 deaths of females. The general age distribution of deaths by ten-year periods gives the highest mortality in the period 60-69 years, both inclusive. As the age distribution of the population varies greatly at the different age periods, a more satisfactory comparison is that given by Table 19, which shows the death rate per 100,000 inhabitants of the same age. According to this comparison, the highest mortality was in the period over 80 years of age. However, the highest mortality is in the period 60-69 years. From this point the rates gradually decrease, and are reached with a rate of only 2.7 per

Comparison of 1900 with 1899 and 1898.—The deaths returned from this cause for 1900 and 1899 were exactly the same, each having 224 deaths. As compared with 1898, however, these years show a considerable increase over that year which only had 187 deaths. The rate, 9.3 per 100,000 population, based upon the actual population as enumerated by the U. S. census for 1900, is only slightly lower than the rate for 1899, 9.4, based upon the estimated population for that year. The increase of 1900 over 1898 is general except in the Northern counties, and shows a slight increase over 1899 in the Upper Peninsula and Central counties.

Table 31.—Deaths from diabetes mellitus in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	224	9.3	29	22	23	11	14	22	17	19	18	14	16	19
I. Upper Peninsula.....	16	6.1	6	2	.....	1	.....	2	2	.....	1	.....	.....	2
II. Northern counties...	11	3.7	1	1	.....	1	2	.....	2	1	1	.....	1	1
III. Central counties...	46	9.1	3	4	7	1	1	4	1	4	4	4	6	1
IV. Southern counties...	157	11.0	19	15	16	8	11	16	12	14	12	10	9	15

Deaths by sex, 1900.		Deaths by ages, 1900.											
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
126	98	1	5	9	14	25	21	17	21	31	51	32	12

MENINGITIS.

Occurrence in Michigan, 1900.—There were 514 deaths registered from meningitis in Michigan during the year 1900, or a death rate of 21.2 per 100,000 population as enumerated by the U. S. census. The distribution of these deaths by months, sex and age periods is shown in Table 32.

For the State as a whole, the month in which the greatest number of deaths occurred from this cause was March, with a record of 60, while the month of November had the fewest deaths, namely, 23.

By geographical sections, the largest number of deaths, 294, was in the Southern counties, and the smallest number, 60, in the Northern counties. Based on population, the largest death rate was 24.9 in the Upper Peninsula, and the lowest, 20.2 per 100,000 population, in the Northern counties.

Classified according to sex, there were 279 males and 235 females. The general age distribution of deaths by ten-year periods gives the largest number, 345, in the period under ten years. There is a rapid and marked increase in the mortality from this cause in the following ten-year periods. The period under five years has a mortality of 287, and the

period 5-9 years shows 58 deaths. As the age distribution of the population varies greatly at the different age periods, a more satisfactory comparison is that given by the death rates per 100,000 inhabitants of the same age in Table 19. According to this table, the maximum mortality was in the period under ten years of age, 65.7 per 100,000 persons of the same age. It is noticeable, however, that the period under 1 year has a rate of 376.7.

Comparison of 1900 with 1899 and 1898.—In the reports for the previous years an attempt was made to distinguish between deaths from "simple meningitis" and deaths from epidemic cerebrospinal meningitis, the latter usually being returned as "cerebrospinal meningitis" or "cerebrospinal fever." Many deaths were returned as "cerebral meningitis," "simple meningitis" or simply as "meningitis" unqualified. In the correspondence with physicians in order to secure information in regard to the meaning to be attached to these indefinite terms, it was clearly brought out that no dependence whatever could be placed upon the form of return as indicating a distinction between simple meningitis and the epidemic form. Hence, it seemed advisable to discontinue the distinction which was sought to be made, and, in the present returns, all deaths reported from meningitis are included under one title. In the following comparison with the years 1899 and 1898, the aggregate numbers of deaths from "meningitis" and "cerebrospinal meningitis" are taken from the separate tables given in the reports for these years in order to compare them with the statistics for 1900.

According to the above classification there were 514 deaths returned to this Department from meningitis for 1900, less than half the number returned in 1899 from "meningitis" and "cerebrospinal meningitis" and quite a considerable decrease from the number returned from these causes in 1898.

Table 32.—Deaths from meningitis in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	514	21.2	54	40	60	51	56	41	35	47	33	45	23	29
I. Upper Peninsula.....	65	24.9	9	6	9	1	9	6	8	5	4	3	1	4
II. Northern counties...	60	20.2	5	5	6	4	8	4	9	7	4	5	1	2
III. Central counties...	95	21.6	5	8	10	14	12	10	1	4	6	11	5	9
IV. Southern counties...	294	20.7	35	21	35	32	27	21	17	31	19	26	16	14

Deaths by sex, 1900.		Deaths by ages, 1900.*											
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
279	235	133	287	58	345	63	38	19	22	9	10	6	1

not stated.

CEREBRAL CONGESTION AND HEMORRHAGE (APOPLEXY).

Occurrence in Michigan, 1900.—There were 1,259 deaths registered from cerebral congestion and hemorrhage (apoplexy) in Michigan during the year 1900, corresponding to a death rate of 52.0 per 100,000 population as enumerated by the U. S. census. The distribution of these deaths by months, sex and age periods is shown in Table 33.

For the State as a whole, the maximum mortality from this cause was for the month of April, in which 118 deaths occurred and the minimum mortality was for February with only 95 deaths.

By geographical sections, the largest number of deaths, 882, was in the Southern counties, and the smallest number, 50, in the Upper Peninsula. Based on population, the highest death rate, 62.0 per 100,000 population, was in the Southern counties, and the lowest, 19.1, in the Upper Peninsula.

By sex, there were 685 deaths of males and 574 deaths of females. The general age distribution of deaths by ten-year periods gives the largest number, 371, in the period 70-79 years, both inclusive. As the age distribution of the population varies greatly at the different age periods, a more satisfactory comparison is that given by the death rates per 100,000 inhabitants of the same age in Table 19. According to this table, the maximum mortality, 1,119.7 per 100,000 persons of the same age was for the period over 80 years, the period 70-79 years having a rate of 672.1. From this point there is a very rapid decrease in the rates until in the period 10-19 years, the rate is only 2.7. It rises again for infants under 1 year, the rate being 121.9, while for the ten-year period, 0-9, it is 16.6.

Table 33.—Deaths from cerebral congestion and hemorrhage (apoplexy) in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	1,259	52.0	112	95	115	118	104	101	101	98	109	102	99	105
I. Upper Pen- insula.....	50	19.1	7	2	2	6	5	7	5	3	5	3	1	4
II. Northern counties...	108	36.4	12	4	8	9	12	8	8	8	11	14	6	8
III. Central counties...	219	49.7	13	17	21	20	21	16	17	19	20	16	20	19
IV. Southern counties...	882	62.0	80	72	84	83	66	70	71	68	23	69	72	74
Deaths by sex, 1900.		Deaths by ages, 1900.*												
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.	
685	574	54	77	10	87	13	21	51	101	166	282	371	166	

* One with age not stated.

Comparison of 1900 with 1899 and 1898.—The deaths returned from cerebral congestion and hemorrhage (apoplexy) for 1900 exceed those

for either of the other two years, the numbers being 1,259, 1,225 and 1,144 respectively. The death rate per 100,000 population rose from 48.7 in 1898 to 51.3 in 1899 and to 52.0 in 1900. The increase is general throughout the State, the Upper Peninsula alone showing an increase of 1898 over 1900.

PARALYSIS.

Occurrence in Michigan, 1900.—There were 788 deaths from paralysis recorded in Michigan during the year 1900, corresponding to a death rate of 32.5 per 100,000 population as enumerated by the U. S. census. The distribution of these deaths by months, sex and age periods is shown in Table 34.

For the State as a whole, the month of maximum mortality from this cause was December with 76 deaths, and the months of minimum mortality were June and August, with 57 deaths each.

Considered by geographical sections, the largest number of deaths, 571, occurred in the Southern counties, and the smallest number, 22, in the Upper Peninsula. Based on population, the highest death rate, 40.1 per 100,000 population, was also in the Southern counties, and likewise, the lowest rate, 8.4, was in the Upper Peninsula.

Classified by sex, there were 393 males and 395 females. The general age distribution of deaths by ten-year periods gives the largest number, 263, in the period 70-79 years, both inclusive. As the age distribution of the population varies greatly at the different age periods, a more satisfactory comparison is that given by the death rates per 100,000 inhabitants of the same age in Table 19. According to the table, the highest mortality, 1,119.7, occurs in the period over 80 years of age; the

Table 34.—Deaths from paralysis in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	788	32.5	75	60	70	69	71	57	62	57	58	65	68	76
I. Upper Peninsula.....	22	8.4	1	2	4	2	1	1	.....	3	1	1	4	2
II. Northern counties...	73	24.0	5	4	9	5	6	7	4	8	9	3	5	8
III. Central counties...	122	27.7	9	17	10	8	11	10	10	11	6	12	8	19
IV. Southern counties...	571	40.1	60	37	47	54	53	39	48	35	42	49	51	56
Deaths by sex, 1900.			Deaths by ages, 1900.*											
Males.	Females.		Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
393	395		7	13	2	15	5	7	13	47	74	194	263	166

* Four with age not stated.

period next below, 70-79 years, having a rate of 476.4, but from this period the decrease is very rapid until the period 10-19 years is reached with a rate of only 1.0 per 100,000 persons of same age. In the next lower period, 0-9 years, we find a slight advance, the rate being 2.9 per 100,000 persons of same age. The period under one year has a rate of 16.6.

Comparison of 1900 with 1899 and 1898.—The deaths returned from paralysis during 1900 were fewer than for either 1899 or 1898, the numbers being 788, 842 and 789 respectively. The death rate per 100,000 population rose from 33.6 in 1898 to 35.3 in 1899, but dropped again to 32.5 for 1900. The excess in mortality of 1899 over 1900 was general throughout all sections of the State, with the exception of the Northern counties which had exactly the same mortality for both years, namely, 73 deaths. The increase of 1900 over 1898 was also general throughout the State, with the exception of the Southern counties.

CONVULSIONS OF INFANTS.

Occurrence in Michigan, 1900.—There were 519 deaths recorded in Michigan from infantile convulsions during the year 1900, or a death rate of 21.4 per 100,000 population as enumerated by the U. S. census. The distribution of these deaths is shown by months, sex and age periods in Table 35.

The month of the greatest mortality from this cause was, for the whole State, March, with 60 deaths, and the month having the least number of deaths was January, with 32.

Table 35.—Deaths from infantile convulsions in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	519	21.4	32	35	60	57	54	40	52	37	36	36	36	44
I. Upper Peninsula.....	86	32.9	7	3	10	14	12	7	3	8	5	6	4	7
II. Northern counties...	63	21.2	.....	5	8	9	5	6	6	7	6	4	4	3
III. Central counties...	77	17.5	7	5	13	5	4	5	11	7	6	5	2	7
IV. Southern counties...	293	20.6	18	22	29	29	33	22	32	15	19	21	26	27
Deaths by sex, 1900.*		Deaths by ages, 1900.												
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.	
287	231	458	519	.....	519	.....	.....	.....	.....	.....	.....	.....	.....	

* One with sex not stated.

Considered by geographical sections, the largest number of deaths, 293, was in the Southern counties, and the smallest number, 63, in the

Northern counties. Based on population, the largest death rate, 32.9, was in the Upper Peninsula, and the lowest, 17.5, in the Central counties. These rates are per 100,000 population.

Classified by sex, there were 287 deaths of males, 231 deaths of females and 1 death with sex not stated. Of the total number, 519, 458 deaths were of infants under 1 year of age. By reference to Table 19, which gives the death rates per 100,000 population of same age, we find that the rate for infants under 1 year was 925.0, 0-4 years, 199.1, while in the period 0-9 years, the rate is 98.9.

Comparison of 1900 with 1899 and 1898.—The deaths returned from this cause for 1900 considerably exceeded those returned for 1899, and very slightly exceeded those for 1898, the numbers being 519, 464 and 516 respectively. The rate per 100,000 population dropped from 22.0 in 1898 to 19.4 in 1899 but rose again in 1900 to 21.4. The increase of 1900 over 1899 was general throughout the State, with the exception of the Central counties. Compared with 1898, however, the number returned for 1900 was exceeded by two sections, the Central and Southern counties, the latter section, especially, being considerably in excess of 1900.

ORGANIC HEART DISEASE.

Occurrence in Michigan, 1900.—There were 2,472 deaths registered from organic heart disease in Michigan during the year 1900, corresponding to a death rate of 102.1 per 100,000 population as enumerated by the U. S. census. The distribution of these deaths is shown by months for the State and geographical sections in Table 36, together with sex and age periods.

For the State as a whole, the maximum mortality from this cause, 230, was in the month of April, and the minimum, 166, in the month of August.

Considered by geographical sections, the largest number of deaths, 1,719 was in the Southern counties, and the smallest, 123, in the Upper Peninsula. Based on population, the largest death rate per 100,000 population was in the Southern counties, namely, 120.9, and the smallest, 47.1, in the Upper Peninsula.

Classified by sex, there were 1,397 deaths of males and 1,075 deaths of females. The general age distribution of deaths by ten-year periods gives the largest number, 664, in the period of 70-79 years, both inclusive. From this point the mortality shows quite a marked decrease down to the period under ten years, when a slight rise is again noticeable. This, however, is due to the mortality from this cause of infants under 1 year, which period had 153 deaths during the year. As the age distribution of the population varies greatly at the different age periods, a more satisfactory comparison will be found in Table 19, which gives the death rates per 100,000 population of same age. From this table we note that the highest mortality, 2,070.8, is in the period over 80 years, and is far in excess of any other period. The next lower period, 70-79 years, comes next with a rate of 1,202.9, but from this point the decrease is very rapid, almost abruptly so, until in the period 10-19 years, we have a rate of

12.1. It rises again for the earlier years of life, and in the period

under 1 year we have a rate 301.0. The period 5-9 years has a rate of only 7.6 per 100,000 persons of same age.

Comparison of 1900 with 1899 and 1898.—The deaths returned from organic heart disease in 1900 considerably exceeded those registered for the preceding years, the numbers being 2,472, 2,227 and 2,016 respectively. The death rate per 100,000 population steadily rose from 85.8 in 1898 to 93.3 in 1899 and to 102.1 in 1900. The increase in mortality was general throughout the State, increasing gradually from 1898 to 1899 and again from 1899 to 1900.

Table 36.—Deaths from organic heart diseases in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	2,472	102.1	211	227	219	230	228	195	196	166	186	179	214	221
I. Upper Peninsula.....	123	47.1	14	9	5	4	11	10	6	15	13	9	15	12
II. Northern counties...	207	69.8	12	23	13	24	20	26	16	9	9	17	22	16
III. Central counties...	423	96.0	34	48	44	40	30	39	34	27	29	35	24	39
IV. Southern counties...	1,719	120.9	151	147	157	162	167	120	140	115	135	118	153	154

Deaths by sex, 1900.		Deaths by ages, 1900.*											
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
1,397	1,075	153	169	20	189	63	80	105	184	334	542	664	307

* Four with age not stated.

BRONCHITIS.

Occurrence in Michigan, 1900.—There were 802 deaths compiled from bronchitis in Michigan during the year 1900, corresponding to a death rate of 33.1 per 100,000 population as enumerated by the U. S. census. The distribution of these deaths is shown by months, sex and age periods in Table 37.

For the State as a whole, the greatest number of deaths from this cause, 126, occurred in the month of April, and the least number, 29, in July.

Considered by geographical sections, the greatest mortality from this cause was in the Southern counties, 431 deaths, and the least, 101, occurred in the Northern counties. Based on population, the largest death rate, 55.1 per 100,000 population, was in the Upper Peninsula, and the smallest, 28.6, in the Central counties.

Classified by sex, there were 399 deaths of males and 403 deaths of females. The general age distribution of deaths by ten-year periods gives the largest number, 424, in the period under 10 years. The period under 1 year has a mortality of 292. As the age distribution of the population

varies greatly at the different age periods, a more satisfactory comparison is that given by the death rates per 100,000 inhabitants of the same age in Table 19. From this table we note that the highest rate is in the period over 80 years, being 721.8. From this point it decreases abruptly, the period next lower, 70-79 years, having a rate of only 199.3. This very noticeable decrease is continued until in the period 10-19 we only find a rate of 2.9 per 100,000 persons of the same age. It increases again very rapidly for children, the period under 1 year having a rate of 681.3. The period 0-9 years has a rate of 80.8.

Comparison of 1900 with 1899 and 1898.—The number of deaths returned from bronchitis in 1900 considerably exceeded those returned for the preceding years, the figures being 802, 785 and 643, respectively. The death rate per 100,000 population rose from 27.4 in 1898 to 32.9 in 1899 and still further to 33.1 in 1900. The increase was general throughout the State for these years, the only exception being that for the Southern counties for 1899, which section had 483 deaths, considerably exceeding the mortality for the same section during the other years.

Table 37.—Deaths from bronchitis* in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	802	33.1	72	85	112	126	92	34	29	41	40	50	49	72
I. Upper Peninsula.....	144	55.1	6	13	14	29	18	11	9	6	9	9	16	19
II. Northern counties...	101	34.0	9	12	11	17	14	8	6	5	4	3	5	7
III. Central counties...	126	28.6	13	13	13	21	13	4	2	3	5	7	11	21
IV. Southern counties...	431	30.3	44	47	74	59	47	11	12	27	22	31	23	34

Deaths by sex, 1900.		Deaths by ages, 1900.											
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
399	403	292	412	12	424	14	18	10	16	31	72	110	107

* Including acute bronchitis and chronic bronchitis.

BRONCHO-PNEUMONIA.

Occurrence in Michigan, 1900.—There were 353 deaths registered in Michigan from broncho-pneumonia during the year 1900, corresponding to a death rate of 14.6 per 100,000 population as enumerated by the U. S. census. The distribution of these deaths by months, sex and age periods is found in Table 38.

The month of maximum mortality from this cause was, for the State as a whole, April with 55 deaths, the minimum mortality occurring during the month of September with only 10 deaths.

Considered by geographical sections, the largest number of deaths,

215, was in the Southern counties, and the smallest number, 28, in the Northern counties. Based on population, the highest death rate, 21.4, was in the Upper Peninsula, and the lowest, 9.4 per 100,000 population was in the Northern counties.

By sex, there were 186 deaths of males and 167 deaths of females. The general age distribution of deaths by ten-year periods gives the largest number, 263, in the period under 10 years. There were only 3 deaths in the next period, 10-19 years, but from this point it gradually increases, until in the period 70-79 years, there were 27 deaths. The largest fatality, however, from the cause was among children, the single period under 1 year having 156 deaths. As the age distribution of the population varies greatly at the different age periods, a more satisfactory comparison is found in Table 19, which gives the death rates per 100,000 inhabitants of same age. From this table, we note that the largest death rate per 100,000 persons of same age occurred in the period under 1 year, with a rate of 385.8. The period under 10 years has an average rate of 50.1, although the next following period, 10-19 years, has a rate of only 0.6. From this point, however, it gradually increases until in the period 70-79 years we find a rate of 48.9, and in the period over 80 years a rate of 94.4 per 100,000 population of same age.

Comparison of 1900 with 1899 and 1898.—The deaths returned from broncho-pneumonia during 1900 considerably exceeded those registered for either of the preceding years, the figures being 353, 287 and 242, respectively. The death rate per 100,000 population rose from 10.3 in 1898 to 12.0 in 1899 and still further to 14.6 in 1900. The Southern and Central counties show a general increase from 1898 to 1900. The largest number of deaths for the Northern counties is recorded for 1899, which had 31 deaths. The mortality for the Upper Peninsula in 1898 exceeded that for 1899 from this cause, but is itself exceeded by 1900.

Table 38.—Deaths from broncho-pneumonia in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	353	14.6	45	40	45	55	33	20	16	15	10	18	19	37
I. Upper Peninsula.....	56	21.4	4	7	8	5	3	2	2	6	2	5	5	7
II. Northern counties...	28	9.4	3	3	6	2	2	2	.....	.....	1	1	2	6
III. Central counties...	54	12.3	7	6	6	10	3	3	2	3	2	2	3	7
IV. Southern counties...	215	15.1	31	24	25	38	25	13	12	6	5	10	9	17
Deaths by sex, 1900.			Deaths by ages, 1900.											
Males.	Females.		Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over
186	167		156	246	17	263	3	5	6	7	8	20	27	14

PNEUMONIA.

Occurrence in Michigan, 1900.—There were 2,035 deaths reported to the Department of State from pneumonia during the year 1900, corresponding to a death rate of 84.1 per 100,000 population as enumerated by the U. S. census. The distribution of these deaths is shown by months, sex and age periods in Table 39.

For the State as a whole, the month of maximum mortality from this cause was April, when 340 deaths occurred, and the minimum number occurred in August, when 43 deaths were reported.

Considered by geographical sections, the largest number of deaths, 1,166, occurred in the Southern counties, and the smallest number, 214, in the Upper Peninsula. Based on population, the highest death rate, 93.0, was in the Northern counties, and the lowest, 81.9 per 100,000 population, in the Upper Peninsula.

By sex, there were 1,089 deaths of males and 946 death of females. The general age distribution of deaths by ten-year periods gives the largest number, 746, in the period under 10 years. As the age distribution varies greatly at the different age periods, a more satisfactory comparison is that given by the death rates per 100,000 inhabitants of same age in Table 19. From an examination of this table, we note that the highest rate for any ten-year period occurred in the period 70-79 years, both inclusive, which had a rate of 423.9 per 100,000 persons of same age. This rate, however, is exceeded in two instances, namely, by the single period under 1 year, with a rate of 1,008.1 and by the period over 80 years of age with a rate of 688.0. The period under 10 years has a rate of 142.2. The period 10-19 years has a rate of 21.2, and from this point the increase is quite rapid.

Table 39.—Deaths from pneumonia in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	2,035	84.1	219	278	328	340	196	106	57	43	59	91	109	209
I. Upper Peninsula.....	214	81.9	22	26	22	40	24	16	2	5	10	9	9	29
II. Northern counties...	276	93.0	24	42	43	41	32	17	7	6	13	10	17	24
III. Central counties...	379	86.0	39	60	58	55	33	19	11	10	14	16	20	44
IV. Southern counties...	1,166	82.0	134	150	205	204	107	54	37	22	22	56	63	112

Deaths by sex, 1900.		Deaths by ages, 1900.*											
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
1,089	946	391	670	76	746	102	151	154	160	174	210	224	105

* Two with age not stated.

Comparison of 1900 with 1899 and 1898.—The deaths returned from pneumonia in 1900 were not so many as the number for 1899, but considerably greater than for 1898, the figures being 2,035, 2,192 and 1,805. The death rate per 100,000 population rose from 76.8 in 1898 to 91.9 in 1899, but dropped again to 84.1 in 1900. The increase of 1899 and 1900 over 1898 was general throughout the State, the only exception in the Southern counties, when the number returned from 1898 exceeded those for 1900. The mortality from this cause for 1899 exceeded that for 1900 in all sections of the State, with the exception of the Northern counties, when a greater number was returned for 1900 than for 1899.

PLEURISY.

Occurrence in Michigan, 1900.—There were 159 deaths registered from pleurisy in Michigan for the year 1900, corresponding to a death rate of 6.6 per 100,000 population as enumerated by the U. S. census. The distribution of these deaths is shown by months, sex and age periods in Table 40.

For the State as a whole, the greatest mortality from this cause was for the month of March when 27 deaths occurred, while the least mortality was in the month of August with only 5 deaths.

Considered by geographical sections, the largest number of deaths, 106, occurred in the Southern counties, and the smallest number, 13, in the Northern counties. Based on population, the largest death rate per 100,000 population, 7.5, was in the Southern counties, and the lowest, 4.4, in the Northern counties.

By sex, there were 89 deaths of males and 70 deaths of females. The general age distribution of deaths by ten-year periods gives the largest number, 25, in the period 30-39 years, both inclusive. As the age distribution of the population varies greatly at the different age periods, a more satisfactory comparison is that given by the death rates per 100,000 inhabitants of same age in Table 19. From an examination of this table, we note that the highest death rate for any ten-year period was for the period 70-79 years, which had a rate of 29.0 per 100,000 persons of same age. The rate for the period over 80 years was 80.9. The rates decrease for the earlier periods of life until the period 10-19 years has a rate of only 2.3, and the period under 10 years a rate of 2.5 per 100,000 persons of same age.

Comparison of 1900 with 1899 and 1898.—The deaths returned from pleurisy in 1900 considerably exceeded those registered for the preceding years, the figures being 159, 134 and 107, respectively. The death rate per 100,000 population rose from 4.5 in 1898 to 5.6 in 1899 and to 6.6 in 1900. The increase was general for the Upper Peninsula and Southern counties. The Central counties for 1898 showed a slight increase over 1899 but were in turn exceeded by those returned for 1900. For the Northern counties the year 1899 showed an increase over the same section for 1900.

Table 40.—Deaths from pleurisy in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	159	6.6	14	20	27	18	11	11	9	5	6	9	14	15
I. Upper Peninsula.....	18	6.9	2	.....	4	.....	2	2	2	1	2	1	1	1
II. Northern counties...	13	4.4	1	1	2	.....	1	1	.....	2	.....	1	.....	4
III. Central counties...	22	5.0	3	2	8	3	1	1	2	.....	1	.....	1	.....
IV. Southern counties...	106	7.5	8	17	13	15	7	7	5	2	3	7	12	10

Deaths by sex, 1900.		Deaths by ages, 1900.											
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
89	70	5	10	3	13	11	22	25	15	24	21	16	12

STOMACH DISEASES.

Occurrence in Michigan, 1900.—There were 650 deaths registered from stomach diseases in Michigan for the year 1900, or a death rate of 26.8 per 100,000 population as enumerated by the U. S. census. The distribution of these deaths by months, sex and age periods is shown by Table 41.

The month of maximum mortality from this cause was, for the State as a whole, August, when 69 deaths were registered, and the minimum number occurred in January, when 42 deaths were returned.

Considered by geographical sections, the largest number of deaths, 408, occurred in the Southern counties, and the smallest number, 56, in the Upper Peninsula. Based on population, the highest death rate, 28.7 per 100,000 population was in the Southern counties, and the lowest, 21.4, in the Upper Peninsula.

Classified by sex, there were 331 deaths of males and 319 deaths of females. The general age distribution of deaths by ten-year periods gives the largest number in the period under 10 years, namely, 244, there being 203 deaths from this cause in the single period under 1 year. As the age distribution of the population varies greatly at the different age periods, a more satisfactory comparison is that given by the death rates per 100,000 inhabitants of same age in Table 19. From this table we note that the highest rate for any ten-year period was in the period 70-79 years, both inclusive, which had a rate of 173.9. However, the period over 80 years has a much higher rate, 418.2, and the single period under 1 year has a rate of 417.3. The period 10-19 years has a rate of only 1.9, but from this point it rapidly increases for the later years of life.

Comparison of 1900 with 1899 and 1898.—The deaths returned from stomach diseases in 1900 considerably exceeded those returned for the preceding years, the figures being 650, 550 and 484, respectively. The rate

per 100,000 population rose from 20.6 in 1898 to 23.1 in 1899 and to 26.8 in 1900. The increase was general throughout the State.

Table 41.—Deaths from stomach diseases in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	650	26.8	42	44	49	60	60	44	43	69	66	57	61	55
I. Upper Peninsula.....	56	21.4	3	1	3	7	6	4	5	6	6	7	4	4
II. Northern counties...	84	28.3	6	7	8	6	8	10	3	7	6	12	6	5
III. Central counties...	102	23.1	5	11	2	9	7	5	7	14	13	9	12	8
IV. Southern counties...	408	28.7	28	25	36	38	39	25	28	42	41	29	39	38

Deaths by sex, 1900.		Deaths by ages, 1900.*											
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
331	319	203	239	5	244	9	22	30	31	60	95	96	62

* One at unknown age.

DIARRHEA AND ENTERITIS.

Occurrence in Michigan, 1900.—There were 2,949 deaths returned to the Department of State from diarrhea and enteritis during 1900, corresponding to a death rate of 121.8 per 100,000 population as enumerated by the U. S. census. The distribution of these deaths is shown by months, sex and age periods in Table 42.

The month of maximum mortality from this cause was, for the State as a whole, September, when 887 deaths were reported. The least number occurred during the month of January, when only 57 deaths were reported.

Considered by geographical sections, the largest number of deaths, 1,423, was in the Southern counties, and the smallest number, 489, in the Northern counties. Based on population, the highest death rate, 189.8 per 100,000 population, was in the Upper Peninsula and the lowest, 100.0, in the Southern counties.

Classified by sex, there were 1,578 deaths of males and 1,371 deaths of females. The general age distribution of deaths by ten-year periods gives the largest number, 2,538, in the period under 10 years, the single period under 1 year having 1,933 deaths. The period 70-79 years has 109 deaths. As the age distribution of the population varies greatly at the different age periods, a more satisfactory comparison is that given by the death rates per 100,000 population of same age in Table 19. From this table we note that the items "infantile diarrhea" and "diarrhea and enteritis" are stated separately, the first item including deaths under 5

years, and diarrhea and enteritis being ascribed to deaths of persons over 5 years of age. For "diarrhea and enteritis" the highest rate for any ten-year period is in the period 70-79 years, namely, 197.5. The period over 80 years has a rate of 600.3. From the period 70-79 years, the rate rapidly decreases until in the period 10-19 years we find a rate of only 5.2 per 100,000 persons of same age. The rate for "infantile diarrhea" under 1 year is 4,314.9.

Comparison of 1900 with 1899 and 1898.—The deaths returned from diarrhea and enteritis (including infantile diarrhea) in 1900 considerably exceeded those registered for the preceding years, the figures being 2,949, 2,308 and 2,096, respectively. The death rate per 100,000 population rose from 89.2 in 1898 to 96.8 in 1899 and again to 121.8 in 1900. The increase was general throughout the State.

Table 42.—Deaths from diarrhea and enteritis in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	2,949	121.8	57	67	72	84	93	102	316	662	887	415	123	71
I. Upper Peninsula.....	496	189.8	3	15	7	10	17	12	41	171	160	38	10	12
II. Northern counties...	489	164.8	7	5	14	14	16	13	35	113	167	76	19	10
III. Central counties...	541	122.8	7	11	7	12	14	15	18	103	205	114	22	13
IV. Southern counties...	1,423	100.0	40	36	44	48	46	62	222	275	355	187	72	36

Deaths by sex, 1900.		Deaths by ages, 1900.*											
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
1,578	1,371	1,933	2,502	36	2,538	25	25	31	24	39	67	109	89

* Two with age not stated.

DYSENTERY.

Occurrence in Michigan, 1900.—There were 254 deaths registered from dysentery in Michigan during the year, corresponding to a death rate of 10.5 per 100,000 population as enumerated by the U. S. census. The distribution of these deaths by months, sex and age periods is shown in Table 43.

The month of maximum mortality from this cause was, for the State as a whole, September, when 98 deaths occurred, and the minimum mortality was in the month of May with only 3 deaths.

Considered geographically, the largest number of deaths, 169, occurred in the Southern counties, and the smallest number, 19, in the Upper Peninsula. Based on population, the highest death rate, 11.9 per 100,000 population, was in the Southern counties and the lowest, 7.3, in the Upper Peninsula.

Classified by sex, there were 118 deaths of males and 136 deaths of females. The general age distribution of deaths by ten-year periods gives the largest number, 113, in the period under 10 years. As the age distribution of the population varies greatly at the different age periods, a more satisfactory comparison is that given by the death rate per 100,000 population of same age in Table 19. From an examination of this table, we note that the highest mortality for any ten-year period occurs in the period 70-79 years, which has a rate of 88.8 per 100,000 persons of same age; the period over 80 years has a rate of 256.3, and the single period under 1 year has a rate of 156.9.

Comparison of 1900 with 1899 and 1898.—The deaths returned from dysentery in 1900 considerably exceeded those returned for the preceding years, the figures being 254, 178 and 150, respectively. The rate rose from 6.4 per 100,000 population in 1898 to 7.5 in 1899 and again to 10.5 in 1900. The increase was general throughout the State, with the exception of the mortality of the Northern counties for 1898, which exceeded the mortality for the same section in 1899.

Table 43.—Deaths from dysentery in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	254	10.5	5	4	8	4	3	5	12	43	98	53	13	6
I. Upper Peninsula....	19	7.3	2	.....	1	1	.....	.....	1	2	9	2	.....	1
II. Northern counties...	28	9.4	.....	.....	.....	.....	.....	1	3	6	10	6	1	1
III. Central counties...	38	8.6	.....	1	1	.....	.....	.....	2	8	15	7	3	1
IV. Southern counties...	169	11.9	3	3	6	3	3	4	6	27	64	38	9	3

Deaths by sex, 1900.		Deaths by ages, 1900.*											
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
118	136	60	107	6	113	2	2	6	6	11	25	49	38

* Two with age not stated.

LIVER DISEASES.

Occurrence in Michigan, 1900.—There were 594 deaths registered in Michigan from liver diseases in 1900, corresponding to a death rate of 24.5 per 100,000 population as enumerated by the U. S. census. The distribution of these deaths by months, sex and age periods is shown in Table 44.

For the State as a whole, the month of maximum mortality from this cause was March with 65 deaths and the month when the least number occurred was November with 36 deaths.

Considered by geographical sections, the largest number, 404, was in the Southern counties, and the smallest number, 36, in the Upper Peninsula. Based on population, the largest death rate per 100,000 population was in the Southern counties, namely, 28.4, and the smallest, 13.8, was in the Upper Peninsula.

Classified by sex, there were 310 deaths of males and 284 deaths of females. The general age distribution of deaths by ten-year periods gives the greatest number, 137, in the period 60-69 years. As the age distribution of the population varies greatly at the different age periods, a more satisfactory comparison is that given by the death rates per 100,000 inhabitants of same age in Table 19. From this table, we note that the highest mortality for any ten-year period was in the period 70-79 years, with a rate of 199.3. The period over 80 years, however, had the highest rate, 236.1, per 100,000 persons of same age.

Comparison of 1900 with 1899 and 1898.—The deaths returned from liver diseases in 1900 considerably exceeded those returned for the preceding years, the numbers being 594, 496 and 477. The death rate rose from 20.3 in 1898 to 20.8 in 1899 and again to 24.5 in 1900. These rates are, of course, per 100,000 population. This increase was general throughout the three years for the Central and Southern counties, but fewer deaths were reported for the Upper Peninsula and Northern counties for 1899 than for either of the other years.

Table 44.—Deaths from liver diseases in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	594	24.5	47	41	65	62	56	43	61	43	55	40	36	45
I. Upper Peninsula.....	36	13.8	5	3	5	2	4	.....	4	2	4	4	2	1
II. Northern counties...	54	18.2	2	3	4	12	3	7	5	3	5	2	4	4
III. Central counties...	100	22.7	7	4	10	9	9	8	10	10	11	5	6	11
IV. Southern counties...	404	28.4	33	31	46	39	40	28	42	28	35	29	24	29
Deaths by sex, 1900.			Deaths by ages, 1900.*											
Males.	Females.		Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
310	284		21	32	8	40	17	27	33	73	121	137	110	35

* One at unknown age.

PERITONITIS.

Occurrence in Michigan, 1900.—There were 343 deaths returned to the Department of State from peritonitis during the year 1900, corresponding to a death rate of 14.2 per 100,000 population as enumerated by the U. S. census.

The month of maximum mortality from this cause was, for the State as a whole, December when 37 deaths occurred. The fewest number occurred during the month of November, namely, 13 deaths.

Considered by geographical sections, the largest number, 219, occurred in the Southern counties, and the smallest number, 28, in the Upper Peninsula. Based on population, the highest death rate, 15.4 per 100,000 population, was likewise in the Southern counties, and the lowest, 10.7, in the Upper Peninsula.

Classified by sex, there were 116 deaths of males and 227 deaths of females. The general age distribution of deaths by ten-year periods gives the largest number, 76, in the period 20-29 years, both inclusive. As the age distribution of the population varies greatly at the different age periods, a more satisfactory comparison is that given by the death rates per 100,000 persons of same age in Table 19. According to this table, we note that the greatest mortality for any ten-year period was in the period 60-69 years, having a rate of 22.0 per 100,000 persons of same age. The rate for infants under 1 year was 48.0, and for the period over 80 years, 47.2.

Comparison of 1900 with 1899 and 1898.—The deaths returned from peritonitis in 1900 considerably exceeded those for the preceding years, the figures being 343, 306 and 284, respectively. The rate rose from 12.1 in 1898 to 12.8 in 1899 and again to 14.2 in 1900. The increase was general throughout the Northern and Central counties. In the Southern counties there was a falling off in the mortality in 1899 from 1898. In the Upper Peninsula the mortality for 1899 exceeded that for 1900 by 1 death.

Table 45.—Deaths from peritonitis in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	343	14.2	33	29	25	29	33	26	29	33	28	28	13	37
I. Upper Peninsula.....	28	10.7	4	.....	1	4	2	1	4	3	3	3	1	2
II. Northern counties...	37	12.5	3	1	.....	3	2	5	.....	7	2	6	3	5
III. Central counties..	59	13.4	4	9	8	2	4	7	4	5	3	6	2	5
IV. Southern counties...	219	15.4	22	19	16	20	25	13	21	18	20	13	7	25
Deaths by sex, 1900.		Deaths by ages, 1900.*												
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.	
116	227	16	35	24	59	51	76	62	30	18	26	12	7	

* Two at unknown ages.

ILIAC ABSCESS.

Occurrence in Michigan, 1900.—There were 221 deaths registered from iliac abscess in Michigan during the year 1900, corresponding to a death rate of 9.1 per 100,000 population as enumerated by the U. S. census. The distribution of these deaths by months, sex and age periods is shown in Table 46.

The month of maximum mortality from this cause was, for the State as a whole, August, when 40 deaths occurred. The minimum mortality was for the month of November, when 10 deaths were reported.

By geographical sections, the greatest number of deaths, 136, occurred in the Southern counties, and the least number, 21, in the Northern counties. Based on population, the highest death rate was in the Upper Peninsula, namely, 11.5 per 100,000 population, and the lowest, 7.1 per 100,000 population in the Northern counties.

Classified by sex, there were 136 deaths of males and 85 deaths of females. The general age distribution of deaths by ten-year periods gives the largest number, 67, in the period 10-19 years, both inclusive. As the age distribution of the population varies greatly at the different age periods, a more satisfactory comparison is that given by the death rates per 100,000 persons of same age in Table 19. From an examination of this table, we find that the greatest mortality as expressed by rates per 100,000 persons of same age was also in the period 10-19 years, having a rate of 13.9.

Table 46.—Deaths from iliac abscess (appendicitis) in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	221	9.1	15	17	11	16	24	13	17	40	29	14	10	15
I. Upper Peninsula.....	30	11.5	3	2	2	2	2	.....	3	8	3	2	2	1
II. Northern counties...	21	7.1	1	1	.....	.....	3	3	.....	5	4	1	2	1
III. Central counties...	34	7.7	3	5	.....	4	6	1	1	8	2	1	1	2
IV. Southern counties...	136	9.6	8	9	9	10	13	9	13	19	20	10	5	11

Deaths by sex, 1900.		Deaths by ages, 1900.											
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
136	85	1	10	18	28	67	41	44	18	11	7	5	.....

Comparison of 1900 with 1899 and 1898.—The deaths returned from iliac abscess for 1900 were less by 2 than those returned for 1899, but considerably exceeded those returned for 1898, the figures being 221, 223 and 165, respectively. The death rate per 100,000 population rose from

7.0 in 1898 to 9.3 in 1899, but fell to 9.1 in 1900. The increase of 1899 over 1898 was general throughout all sections of the State, while 1900 exceeded 1899 for the Upper Peninsula and Southern counties.

BRIGHT'S DISEASE.

Occurrence in Michigan, 1900.—There were 852 deaths registered from Bright's disease in Michigan during the year 1900, corresponding to a death rate of 35.2 per 100,000 population as enumerated by the U. S. census. The distribution of these deaths by months, sex and age periods is shown in Table 47.

The month of greatest mortality was, for the State as a whole, March, when 85 deaths occurred. The least number occurred in July, namely, 61.

By geographical sections, the largest number of deaths were reported from the Southern counties, namely, 562, and the smallest number, 60, from the Northern counties. Based on population, the highest death rate was in the Southern counties, namely, 39.5 per 100,000 population, and the lowest, 20.2, was in the Northern counties.

Classified by sex, there were 530 deaths of males and 322 deaths of females. The general age distribution of deaths by ten-year periods gives the largest number in the period 70-79 years, both inclusive, namely, 192. From this point the mortality gradually decreases until in the period 10-19 years we only have 18 deaths reported. As the age distribution of the population varies greatly at the different periods, a more satisfactory comparison is that given by the death rates per 100,000 persons of same age in Table 19. From this table we note that the greatest mortality as expressed by rates per 100,000 persons of same age was in the

Table 47.—Deaths from Bright's disease in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	852	35.2	71	69	85	74	65	76	61	67	66	64	71	83
I. Upper Pen- insula.....	61	23.3	3	4	8	5	6	6	5	4	6	1	6	7
II. Northern counties...	60	20.2	5	7	6	7	8	5	2	4	.....	4	4	8
III. Central counties...	169	38.4	22	18	12	11	11	15	14	13	12	15	11	15
IV. Southern counties...	562	39.5	41	40	59	51	40	50	40	46	48	44	50	53

Deaths by sex, 1900.		Deaths by ages, 1900.*											
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
530	322	5	8	11	19	18	49	63	89	160	183	192	78

* One at unknown age.

period over 80 years, 526.1. For any ten-year period the greatest mortality was in the period 70-79 years having a rate of 347.8 per 100,000 inhabitants of same age. The period under 10 years had a rate of 3.6.

Comparison of 1900 with 1899 and 1898.—The number of deaths registered for 1900 from this cause was less than those returned for the preceding years, the figures being 852, 965 and 915, respectively. The death rate per 100,000 population rose from 38.9 in 1898 to 40.4 in 1899 but fell to 35.2 in 1900. The mortality for 1899 exceeded that for 1898 in the Northern and Southern counties, but was exactly the same for the Central counties. The mortality for 1900 exceeded 1899 for the Upper Peninsula and Central counties, but was exceeded by the deaths returned from the Northern and Southern counties.

PUERPERAL DISEASES.

Occurrence in Michigan, 1900.—There were 452 deaths returned from puerperal diseases in Michigan during the year 1900, corresponding to a death rate of 18.7 per 100,000 population as enumerated by the U. S. census. The distribution of these deaths by months, and age periods is shown in Table 48.

For the State as a whole, the largest number of deaths returned from this cause occurred during the month of March, when 61 deaths were reported. The least number was reported for January, namely, 25. By geographical sections, the largest number, 250, occurred in the Southern counties, and the smallest number, 44, in the Upper Peninsula. Based on population, the highest death rate, 25.6, was in the Northern counties, and the lowest, 16.8, was in the Upper Peninsula.

Table 48.—Deaths from puerperal diseases in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	452	18.7	25	38	61	50	50	33	31	37	28	33	27	39
I. Upper Peninsula.....	44	16.8	3	3	8	7	5	4	3	3	1	4	1	2
II. Northern counties...	76	25.6	4	3	11	6	9	5	6	12	5	4	2	9
III. Central counties...	82	18.6	3	5	11	8	9	7	10	5	3	8	6	7
IV. Southern counties...	250	17.6	15	27	31	29	27	17	12	17	19	17	18	21
Deaths by sex, 1900.			Deaths by ages, 1900.											
Males.	Females.		Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
	452		.....	.....	.....	.....	39	214	160	38	1	.....	.....	.....

The general age distribution of deaths by ten-year periods gives the largest number in the period 20-29 years, both inclusive. The highest rate per 100,000 females of same age also shows the greatest mortality in the period 20-29 years.

Comparison of 1900 with 1899 and 1898.—The deaths returned from puerperal diseases in 1900 considerably exceeded those for the preceding years, the figures being 452, 428 and 387, respectively. The rate per 100,000 population rose from 16.5 in 1898 to 17.9 in 1899 and to 18.7 in 1900. The mortality for 1898 exceeded that for the other two years in the Upper Peninsula and Central counties. The increase of 1900, however, over 1899 was general throughout the State with the exception of the Upper Peninsula.

SKIN DISEASES.

Occurrence in Michigan, 1900.—There were 296 deaths reported to the Department of State from skin diseases during the year 1900, corresponding to a death rate of 12.2 per 100,000 inhabitants as enumerated by the last U. S. census. The distribution of these deaths by months, sex and age periods is shown in Table 49.

For the State as a whole, the month of maximum mortality was March, 35 deaths were reported. The least number occurred during the month of September, namely, 12.

By geographical sections, the largest mortality from this cause was reported from the Southern counties, 193, and the smallest from the Upper Peninsula, namely, 27. Based on population, the highest death rate per 100,000 population was in the Southern counties, 13.6, and the lowest, 10.1, in the Northern counties.

Table 49.—Deaths from skin diseases in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	296	12.2	24	33	35	27	26	27	21	16	12	25	19	31
I. Upper Peninsula.....	27	10.3	3	3	1	1	4	3	.....	1	1	2	.....	8
II. Northern counties...	30	10.1	4	2	4	2	2	6	.....	1	2	1	3	3
III. Central counties...	46	10.4	4	10	7	3	6	2	2	1	1	5	1	4
IV. Southern counties...	193	13.6	13	18	23	21	14	16	19	13	8	17	15	16

Deaths by sex, 1900.		Deaths by ages, 1900.											
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
173	123	54	70	2	72	5	13	20	26	29	38	57	36

Classified by sex, there were 173 deaths of males and 123 deaths of females. The general age distribution of deaths by ten-year periods gives the largest number in the period under 10 years, namely, 72. The single period under 1 year had a mortality of 54 deaths. As the age distribution of the population varies greatly at the different age periods, a more satisfactory comparison is that shown by the death rates per 100,000 population of same age in Table 19. According to this table, we note that the highest rate for any ten-year period is that for the period 70-79 years, namely, 103.3. This, however, is exceeded by the single period under 1 year which has a rate of 116.3, and also for the period over 80 years which has a rate of 242.8 per 100,000 persons of same age.

Comparison of 1900 with 1899 and 1898.—The deaths returned from skin diseases in 1900 considerably exceeded those reported for the preceding years, the figures being 296, 267 and 227, respectively. The rate per 100,000 population rose from 9.7 in 1898 to 11.2 in 1899 and to 12.2 in 1900. The increase was general throughout the State with the exception of the Central counties, when the mortality for 1898 in the Central counties exceeded that for the same section of the other two years.

DISEASES OF THE LOCOMOTOR SYSTEM.

Occurrence in Michigan, 1900.—There were 57 deaths from diseases of the locomotor system reported to the Department of State for the year 1900, corresponding to a death rate of 2.4 per 100,000 population as enumerated by the U. S. census. The distribution of these deaths by months, sex and age periods is shown in Table 50.

The month of greatest mortality from this cause was, for the State as a whole, September, when 9 deaths were reported. The minimum number reported for any one month was 2 occurring in the months of January, May and November.

By geographical sections, the largest number occurred in the Southern counties, namely, 38, and the smallest number, 5, was reported from the Upper Peninsula. Based on population, the highest rate was in the Southern counties, namely, 2.7, and the lowest in the Central counties, 1.6 per 100,000 population.

Classified by sex, there were 32 deaths of males and 25 deaths of females. The general age distribution of deaths by ten-year periods, gives the largest number, 23, in the period under 10 years. There were 17 deaths in the single period under 1 year. As the age distribution of the population varies greatly at the different age periods, a more satisfactory comparison is that shown by the death rates per 100,000 population of same age in Table 19. From this table we note that the highest rate was in the single period under 1 year which had a rate of 40.6 per 100,000 persons of same age. For any ten-year period the highest rate is in the period 70-79 years, 5.4 per 100,000 persons of same age.

Comparison of 1900 with 1899 and 1898.—The deaths returned from this cause for 1900 were very much less than those returned for the preceding years, the figures being 57, 75 and 90, respectively. The rate decreased from 3.8 in 1898 to 3.1 per 100,000 population in 1899 and still further to 2.4 in 1900.

Table 50.—Deaths from diseases of the locomotor system in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	57	2.4	2	5	5	6	2	5	4	4	9	6	2	7
I. Upper Peninsula.....	5	1.9	.....	2	.....	1	.....	.....	.....	1	.....	.....	1	.....
II. Northern counties...	7	2.4	.....	.....	1	1	.....	.....	1	.....	2	1	.....	1
III. Central counties...	7	1.6	.....	.....	2	.....	.....	2	.....	.....	1	1	.....	1
IV. Southern counties...	38	2.7	2	3	2	4	2	3	3	3	6	4	1	5
Deaths by sex, 1900.			Deaths by ages, 1900.											
Males.	Females.		Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over
32	25		17	23	.....	23	7	6	5	2	5	6	3	.....

MALFORMATIONS.

Occurrence in Michigan, 1900.—There were 206 deaths reported to the Department of State from malformations during the year 1900, corresponding to a death rate of 8.5 per 100,000 population as enumerated by the U. S. census. The distribution of these deaths by months, sex and age periods is shown in Table 51.

For the State as a whole, the greatest number of deaths from this cause occurred during the months of April and August, with 25 each, and the least number during the month of February when 10 deaths were reported.

Considered by geographical sections, the largest number of deaths, 110, occurred in the Southern counties, and the smallest number, 18, in the Upper Peninsula. Based on population, the highest rate per 100,000 population, 13.5, was in the Northern counties and the lowest, 6.9 per 100,000 population, was in the Upper Peninsula.

Classified by sex, there were 100 deaths of males and 106 deaths of females. The general age distribution of deaths by ten-year periods gives the largest number in the period under 10 years, there being no deaths reported over 10 years of age. There were 183 deaths under 1 year of age. According to Table 19, which gives the death rates per 100,000 persons of same age, we note that the highest rate, 369.3, is in the period under 1 year. The period under 10 years has a rate of 39.3 per 100,000 persons of same age.

Comparison of 1900 with 1899 and 1898.—The deaths returned from malformations in Michigan during 1900 considerably exceeded those for the preceding years, the figures being 206, 170 and 140, respectively. The rate rose from 6.0 in 1898 to 7.1 in 1899 and to 8.5 in 1900. The increase

was general throughout the State with two exceptions, namely, the mortality for the Central counties in 1898 exceeded that for the same section in 1899, and the mortality for the Southern counties in 1899 slightly exceeded that for the same section in 1900.

Table 51.—Deaths from malformations in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	206	8.5	15	10	16	25	18	18	14	25	15	18	12	20
I. Upper Peninsula.....	18	6.9	2	2	2	3	1	5	.....	1	.....	.....	.....	2
II. Northern counties...	40	13.5	5	2	1	8	5	1	2	7	5	2	.....	2
III. Central counties...	38	8.6	.....	5	3	4	1	5	5	3	2	5	3	2
IV. Southern counties...	110	7.7	8	1	10	10	11	7	7	14	8	11	9	14
Deaths by sex, 1900.		Deaths by ages, 1900.												
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.	
100	106	183	204	2	206	.....	.....	.....	.....	.....	.....	.....	.....	

DISEASES OF INFANCY.

Occurrence in Michigan, 1900.—There were 1,441 deaths registered from diseases of infancy in 1900, corresponding to a death rate of 59.5 per 100,000 population as enumerated by the U. S. census. The distribution of these deaths by months, sex and age periods is shown in Table 52.

For the State as a whole, the greatest mortality from this cause occurred during the month of September with 159 deaths. The least number occurred during November with 92 deaths.

Considered by geographical sections, the largest number, 840, occurred in the Southern counties, and the smallest number, 154, occurred in the Northern counties. Based on population, the highest death rate, 84.6, was in the Upper Peninsula, and the lowest, 51.3 per 100,000 population, in the Central counties.

Classified by sex, there were 816 deaths of males and 621 deaths of females. There were 1,413 deaths under 1 year of age. Also from an examination of Table 19, which gives the death rates per 100,000 persons of same age, we find a rate of 2,647.7 under 1 year of age, the average rate under 5 years being 552.8 per 100,000 inhabitants of same age.

Comparison of 1900 with 1899 and 1898.—The deaths returned from diseases of infancy during 1900 considerably exceeded those returned for the preceding years, the figures being 1,441, 1,396 and 1,170, respectively.

The rate rose from 49.8 per 100,000 population in 1898 to 58.5 in 1899 and still further to 59.5 in 1900. This increase was general throughout all sections of the State.

Table 52.—Deaths from diseases of infancy in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	1,441	59.5	106	114	122	121	123	115	126	127	159	129	92	107
I. Upper Peninsula.....	221	84.6	19	19	22	16	17	20	17	19	22	18	14	18
II. Northern counties...	154	51.9	15	13	20	16	12	10	11	10	15	8	7	11
III. Central counties...	226	51.3	13	17	19	21	28	19	9	17	28	21	20	14
IV. Southern counties...	840	59.1	59	65	61	68	66	66	89	75	94	82	51	64

Deaths by sex, 1900.*		Deaths by ages, 1900.											
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
816	621	1,413	1,441	.....	1,441	.....	.....	.....	.....	.....	.....	.....	.....

* Four with sex not stated.

OLD AGE.

Occurrence in Michigan, 1900.—There were 674 deaths returned to the Department of State from old age during the year 1900, corresponding to a death rate of 27.8 per 100,000 population as enumerated by the U. S. census. The distribution of these deaths by months, sex and age periods is shown in Table 53.

For the State as a whole, the month of maximum mortality was April, during which month 69 deaths were reported. The least number occurred during the month of July, when 39 deaths were reported.

Considered by geographical sections, the greatest number of deaths occurred in the Southern counties, namely, 438, and the least number, 29, in the Upper Peninsula. Based on population, the highest death rate per 100,000 population was in the Northern counties, 37.2, and the lowest, 11.1, in the Upper Peninsula.

Classified by sex, there were 317 deaths of males and 357 deaths of females. The greatest mortality is in the period over 80 years, with 437 deaths. The period 70-79 years has 194 deaths. According to Table 19, which gives the death rates per 100,000 persons of same age, we have a rate of 2,947.7 for the period over 80 years, and a rate of 351.4 for the period 70-79 years, both inclusive.

Comparison of 1900 with 1899 and 1898.—The deaths returned from old age during 1900 were slightly below the number returned for 1899

but exceeded those returned for 1898, the figures being 674, 676 and 658. The rate per 100,000 population rose from 28.0 in 1898 to 28.3 in 1899 but dropped to 27.8 in 1900.

Table 53.—Deaths from old age in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	674	27.8	67	52	65	69	52	52	39	54	63	51	56	54
I. Upper Peninsula.....	29	11.1	.....	4	4	2	2	3	2	2	4	1	3	2
II. Northern counties...	97	32.7	9	11	7	7	11	9	5	12	7	5	7	7
III. Central counties...	110	25.0	15	10	9	9	10	8	5	5	12	7	12	8
IV. Southern counties...	438	30.8	43	27	45	51	29	32	27	35	40	38	34	37

Deaths by sex, 1900.		Deaths by ages, 1900.*											
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
317	357	.....	.....	.....	.....	.....	.....	.....	.....	4	36	194	437

* Three with age not stated.

SUICIDE.

Occurrence in Michigan, 1900.—There were 211 deaths returned to the Department of State from suicide during the year 1900, corresponding to a death rate of 8.7 per 100,000 population as enumerated by the U. S. census. The distribution of these deaths by months, sex and age periods is shown in Table 54.

For the State as a whole, the month of maximum mortality from this cause was July with 28 deaths. The least number occurred during the month of November, namely, 8.

Considered by geographical sections, the largest number of deaths from this cause occurred in the Southern counties, 154, and the smallest number in the Upper Peninsula, namely, 12. Based on population, the highest death rate per 100,000 population was in the Southern counties, 10.8, and the lowest in the Upper Peninsula, 4.6.

Classified by sex, there were 154 deaths of males and 57 deaths of females. The general age distribution of deaths by ten-year periods gives the largest number, 37, in the period 50-59 years, both inclusive. As the age distribution of the population varies greatly at the different age periods, a more satisfactory comparison is that shown by the death rates per 100,000 persons of same age in Table 19. According to this table, we note that the highest rate is in the period over 80 years, being 54.0. The period 70-79 years has a rate of 38.0, and from this point the

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rate gradually decreases until in the period 10-19 years, we have a rate of only 2.3 per 100,000 population of same age.

Comparison of 1900 with 1899 and 1898.—The deaths returned from suicide in Michigan during 1900, 211, exceeded those returned for the preceding years, each having 189 deaths. The rate per 100,000 population, however, dropped from 8.0 per 100,000 in 1898 to 7.9 in 1899 but rose again to 8.7 in 1900. The mortality from this cause for 1899 exceeded that for 1898 in all but the Central counties. That for 1900 exceeded 1899 for the Southern and Central counties.

Table 54.—Deaths from suicide in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	211	8.7	25	9	15	21	23	16	28	19	14	15	8	18
I. Upper Peninsula.....	12	4.6	2	2	1	.....	2	1	2	1	1	.....	.....	.....
II. Northern counties...	17	5.7	1	1	2	3	1	.....	3	.....	.....	2	2	2
III. Central counties...	28	6.4	4	...	2	1	3	3	9	8	.....	.....	.....	3
IV. Southern counties...	154	10.8	18	6	10	17	17	12	14	15	13	13	6	13

Deaths by sex, 1900.		Deaths by ages, 1900.*											
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
154	57	.....	.....	.....	.....	11	41	29	29	37	33	21	8

* Two with age not stated.

ACCIDENTS.

Occurrence in Michigan, 1900.—There were 1,740 deaths returned to the Department of State during the year 1900, corresponding to a death rate of 71.9 per 100,000 population as enumerated by the U. S. census. The distribution of these deaths by months, sex and age periods is shown in Table 55.

For the State as a whole, the maximum mortality from this cause was in the month of July with 199 deaths. The least number, 117, occurred during the month of February.

Considered by geographical sections, the largest number of deaths was in the Southern counties, namely, 895, and the smallest number, 234, was in the Northern counties. Based on population, the highest rate per 100,000 population was in the Upper Peninsula, namely, 126.6, and the lowest, 62.9, in the Southern counties.

Classified by sex, there were 1,385 deaths of males and 355 deaths of females. The general age distribution of deaths by ten-year periods gives the largest number, 323, in the period under 10 years. As the age

distribution of the population varies greatly at the different age periods, a more satisfactory comparison is that given by the death rates per 100,000 persons of same age in Table 19. According to this table the highest rate, 796.0, is in the period over 80 years. The period 70-79 years has a rate of 202.9, and the single period under 1 year a rate of 293.6.

Comparison of 1900 with 1899 and 1898.—The deaths returned from accidents in 1900 considerably exceeded those for the preceding years, the figures being 1,740, 1,579 and 1,455, respectively. The rate rose from 61.9 per 100,000 population in 1898 to 66.2 in 1899 and still further to 71.9 in 1900. The increase was general throughout the State with the exception of the Central counties where the mortality for 1899 exceeded that for 1900.

Table 55.—Deaths from accidents in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	1,740	71.9	118	117	132	148	136	167	199	186	126	143	127	141
I. Upper Peninsula.....	331	126.6	16	29	31	24	31	27	38	34	29	20	31	21
II. Northern counties...	234	78.9	17	14	18	15	15	27	28	26	11	20	17	26
III. Central counties...	280	63.5	21	13	27	28	21	30	23	36	14	21	20	26
IV. Southern counties...	895	62.9	64	61	56	81	69	83	110	90	72	82	59	68

Deaths by sex, 1900.		Deaths by ages, 1900.*											
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
1,385	355	113	234	89	323	231	280	227	177	137	103	112	118

* Twenty-nine with age not stated.

HOMICIDE.

Occurrence in Michigan, 1900.—There were 15 deaths returned to the Department of State from homicide during the year 1900, corresponding to a death rate of 0.6 per 100,000 population as enumerated by the U. S. census. The distribution of these deaths by months, sex and age periods is shown in Table 56.

For the State as a whole, the month of maximum mortality was September when 5 deaths occurred. There were no deaths from this cause during the months of February, June, July and November.

Considered by geographical sections, the largest number occurred in the Southern counties, namely, 6, and the smallest number, 1, in the Northern counties. Based on population, the Upper Peninsula and Central counties had exactly the same rate per 100,000 population, namely, 1.1. The lowest rate, 0.3, occurred in the Northern counties.

Classified by sex, there were 10 deaths of males and 5 deaths of females. The general age distribution of deaths by ten-year periods gives the largest number in the period 20-29 years, both inclusive, namely, 5. As the age distribution of the population varies greatly at the different age periods, a more satisfactory comparison is that given by the death rates per 100,000 population of same age, as shown in Table 19. According to this table, the highest rate is in the period 20-29 years, 1.2 per 100,000 persons of same age.

Comparison of 1900 with 1899 and 1898.—The deaths returned from homicide during 1900 were much fewer than for the preceding years, the figures being 15, 28 and 33, respectively. The rate per 100,000 population fell from 1.4 in 1898 to 1.2 in 1899 and still further to 0.6 in 1900.

Table 56.—Deaths from homicide in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	15	0.6	1	.....	1	1	1	.....	.....	3	5	1	.....	2
I. Upper Peninsula.....	3	1.1	.....	.....	.....	.....	1	.....	.....	.....	2	.....	.....	.....
II. Northern counties...	1	0.3	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....
III. Central counties...	5	1.1	.....	.....	1	1	.....	.....	.....	1	.....	1	.....	1
IV. Southern counties...	6	0.4	1	.....	.....	.....	.....	.....	.....	2	2	.....	.....	1

Deaths by sex, 1900.		Deaths by ages, 1900.											
Males.	Females.	Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
10	5	.....	2	.....	2	2	5	3	1	1	1	.....	.....

ILL-DEFINED CAUSES.

Occurrence in Michigan, 1900.—There were 1,435 deaths registered in Michigan from ill-defined causes during 1900, corresponding to a death rate of 59.3 per 100,000 population as enumerated by the U. S. census. The distribution of these deaths by months, sex and age periods is shown in Table 57.

The month of maximum mortality from this cause was, for the State as a whole, April, with 136 deaths. The least number occurred in the month of June, with 103 deaths.

Considered by geographical sections, the largest number, 747, occurred in the Southern counties, and the smallest number, 196, in the Northern counties. Based on population, the highest death rate per 100,000 population, 76.1, occurred in the Upper Peninsula, and the lowest, 52.5, in the Southern counties.

Classified by sex, there were 763 deaths of males and 668 deaths of

females. The general age distribution of deaths by ten-year periods gives the largest number, 383, in the period under 10 years. From the next period, 10-19 years, which has 14 deaths, the mortality rapidly increases for the later periods of life, the period over 80 years having a mortality of 381. The single period under 1 year has a mortality of 338. As the age distribution of the population varies greatly at the different age periods, a more satisfactory comparison is that given by the death rates per 100,000 population of same age as shown in Table 19. From this we note that by far the highest rate is for the period over 80 years, which has the extremely high rate of 2,570.0. The next lower period, 70-79 years, has a rate of 570.6 and from this point the rates rapidly decrease until in the period 10-19 years we have a rate of only 2.9 per 100,000 persons of same age. The rate for the period under 1 year is 668.4.

Comparison of 1900 with 1899 and 1898.—The deaths returned from ill-defined causes for 1900 were less than those returned for 1899 but exceeded those returned for 1898, the figures being 1,435, 1,580 and 1,347, respectively. The rate rose from 57.3 per 100,000 population in 1898 to 66.2 in 1899 but fell off to 59.3 in 1900. The increase of 1899 over 1898 was general throughout all sections of the State. As compared with 1900 the decrease from 1899 was general throughout the State with the exception of the Upper Peninsula.

Table 57.—Deaths from ill-defined causes in Michigan, 1900.

Geographical sections.	Total deaths, 1900.	Death rate per 100,000 population.	Deaths by months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
State.....	1,435	59.3	125	118	122	136	122	103	110	122	126	106	121	124
I. Upper Peninsula.....	199	76.1	8	16	11	17	20	13	20	24	20	17	22	11
II. Northern counties...	196	66.1	18	14	20	19	17	10	9	15	19	22	15	18
III. Central counties...	293	66.5	27	18	29	30	17	18	26	25	24	26	19	34
IV. Southern counties...	747	52.5	72	70	62	70	68	62	55	58	63	41	65	61

Deaths by sex, 1900.*

Deaths by ages, 1900.†

Males.	Females.	Deaths by ages, 1900.†											
		Under 1 year.	Under 5 years.	5 to 9.	Under 10 years.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 to 79.	80 and over.
763	668	338	370	13	383	14	32	39	50	67	139	315	381

* Four with sex not stated.

† Fifteen with age not stated.

PART III.—MARRIAGES IN MICHIGAN DURING THE YEAR 1900.

There were 23,295 marriages returned to the State Department as having occurred in Michigan during the year 1900. This number exceeds that registered for the preceding year by 1,418, and corresponds to a rate of 19.2 persons married per 1,000 enumerated population. These figures may be compared in Table 2, page xx, with the corresponding figures for previous years of registration, from which it appears that the number of marriages for the year was the largest and the marriage rate the highest ever recorded in the State.

Unfortunately, however, for those who desire to utilize the marriage statistics of Michigan as a guide to a knowledge of the changes in the social conditions of the State and as a basis for studies relating to the movement of population, the marriages returned to the State Department as having occurred in Michigan no longer relate exclusively to the marriages of citizens of the State, as a large element of foreign marriages was introduced in the statistics beginning with the year 1899. This may be seen in Table 8, page xxxii, Thirty-third Annual Report, where it appears that the number of marriages in Berrien county for the year 1899 was 1,077, an increase of 633 over the number, 444, recorded for the year 1898. This increase in the marriages of the county was due to the development of the famous "St. Joseph marriage industry," which, by advertising methods and the aid of Sunday excursions from Chicago, succeeded in bringing large numbers of persons from Chicago, other parts of Illinois and Indiana to Michigan for the purpose of being married. This business increased also in the present year, 1900, in even a larger degree, so that the number of marriages performed each year in Michigan cannot be taken any longer as relating exclusively to the vital statistics of this State, but must be largely corrected, if it were possible to do so in a satisfactory manner, for the introduction of this foreign material, before any inferences can be drawn on this subject.

SUMMARY OF THE REGISTRATION OF MARRIAGES IN MICHIGAN, 1900.

Some of the most important facts relative to the registration of marriages in Michigan during the year 1900 are herewith presented:

Total number of marriages returned, 1900.....	23,295
Persons married per 1,000 population, 1900.....	19.2

The above statement does not include 40 marriages performed by Judges of Probate under the act authorizing secret marriages in certain cases. Twenty-two of these secret marriages were at illegal ages according to the general laws of the State and others gave legal sanction to common-law unions, the couples being supposed to have been regularly married by the communities in which they live. A table showing the age distribution of these marriages may be found on page 91.

As compared with the preceding year of registration, we have:

Increase of marriages registered for the year 1900 (23,295) over the number for 1899 (21,877) 1.08

As to the occurrence of marriages by months, we have:

More than average number.....	June, September, October, November, December
Less than average number.....	January, February, March, April, May, July, August
Favorite month for marriages, 1900.....	October, 2,496 or 24.3 per 1,000
Month of fewest marriages and lowest rate, 1900.....	March, 1,322 or 12.9 per 1,000

Of the 23,295 marriages, there were with respect to nativity:

Both bridegroom and bride of native birth.....	14,661 or 62.9 per cent
Both bridegroom and bride of foreign birth.....	3,154 or 13.5 per cent

Including mixed marriages, that is, marriages in which bridegroom and bride were of different nativities there were:

Males of native birth married, 1900.....	16,979 or 72.9 per cent
Males of foreign birth married, 1900.....	6,294 or 27.0 per cent
Females of native birth married, 1900.....	17,730 or 76.1 per cent
Females of foreign birth married, 1900.....	5,068 or 21.8 per cent

As to age at marriage, the most important groups were:

Males aged 20 to 24 years, both inclusive.....	8,843 or 38.0 per cent
Males aged 25 to 29 years, both inclusive.....	6,994 or 30.0 per cent
Females under 20 years of age.....	6,280 or 27.0 per cent
Females aged 20 to 24 years, both inclusive.....	9,625 or 41.4 per cent

MARRIAGES AND MARRIAGE RATES BY COUNTIES, 1900.

Besides the primary tables giving a full statement of the marriages returned from each county by months and periods of ages of persons married (Table I, page 81 and Table II, page 83) together with the statement of nativity of persons married by counties (Table III, page 88), reference may be made to Table 7, page xxvi, which shows the marriage rates for each county for the year. These rates are stated, as is the preferable statistical custom, as the number of *persons married* per 1,000 estimated population. In general such comparisons of marriages of persons married to the population are subject to further analysis on the basis of the number of unmarried persons in the population and their age-distribution. Such an exceptional rate as that of Berrien county, 58.9 per 1,000, is not comparable with the figures for other counties, owing to the special conditions. This remarkably high rate of Berrien county is due to the large and increasing number of marriages of persons who are non-residents of the State. Aside from this exception, the rates of the other counties show considerable uniformity.

MARRIAGES RETURNED BY MONTHS, 1891-1900.

In Table 58 the marriages returned in Michigan for the past ten years are shown according to the months in which the ceremonies were performed. For 1900 the largest number occurred in October, 2,496, and the least number, 1,322, was in March. The distribution of marriages through the year must be considerably affected, however, by the large number of foreign marriages in Berrien county, most of which occurred *during the summer excursion season.*

Table 58.—Marriages returned, by months, for the years 1891-1900; with average for the ten-year period.

Years.	Total marriages.	Months of marriage.												
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug	Sept.	Oct.	Nov.	Dec.	Unk.
1891.....	19,244	1,466	<i>1,326</i>	1,339	1,623	1,419	1,502	1,380	1,383	1,749	1,986	1,984	2,086	1
1892.....	20,107	<i>1,335</i>	1,455	1,542	1,543	1,590	1,751	1,386	1,407	1,286	2,037	2,181	2,049	5
1893.....	19,197	1,452	<i>1,273</i>	1,318	1,663	1,574	1,769	1,408	1,356	1,730	2,018	2,060	1,574	2
1894.....	18,220	1,366	<i>1,060</i>	1,403	1,552	1,348	1,486	1,262	1,256	1,704	2,034	1,992	1,754	3
1895.....	18,952	1,389	1,342	<i>1,324</i>	1,536	1,456	1,690	1,367	1,349	1,658	2,110	2,036	1,694	1
1896.....	18,897	1,443	1,271	1,368	1,684	1,361	1,762	1,305	<i>1,238</i>	1,759	1,826	2,028	1,846	6
1897.....	18,579	<i>1,179</i>	1,273	1,426	1,441	1,354	1,828	1,235	1,258	1,719	1,887	2,044	1,935	.....
1898.....	20,138	1,397	<i>1,302</i>	1,400	1,613	1,482	2,056	1,315	1,487	1,793	2,043	2,264	1,979	7
1899.....	21,877	1,343	<i>1,311</i>	1,324	1,765	1,581	2,185	1,681	1,767	2,095	2,323	2,464	2,038	.....
1900.....	23,295	1,717	1,541	<i>1,322</i>	1,765	1,779	2,398	1,800	1,876	2,192	2,496	2,332	2,075	2
A. v. 1891-1900.	19,851	1,409	<i>1,315</i>	1,377	1,619	1,494	1,843	1,414	1,438	1,769	2,076	2,130	1,903	3

Maxima in bold face type; minima in *italics*.

MARRIAGES BY MONTHS AND QUARTERS, 1900.

The distribution of marriages during the year 1900 is further shown in Table 59, where figures are given not only for the numbers returned but also showing the average number per day for each month, the rank on a standard scale and the rate per 1,000 persons married by months for the year. The month of highest rank, considered as to the choice for marriage, was October, while March was the least frequently chosen.

Table 59.—Marriages in Michigan, by months and quarters, 1900.

Year and months.	Number of marriages, 1900.		Average number per day, 1900.	Rank.	Persons married per 1,000 population, 1900.	Ten-year period, 1891-1900.		
	By months.	By quarters.				Average number.	Average daily number.*	Rank.
Year.....	23,295	.....	63.8	1,200	19.2	21,056	57.7	1,200
January.....	1,717	4,580	55.4	87	16.7	1,495	48.2	84
February.....	1,541		55.0	86	16.5	1,395	48.8	86
March.....	1,322		42.6	67	12.9	1,461	47.1	82
April.....	1,765	5,942	58.8	92	17.8	1,717	57.2	99
May.....	1,779		57.4	90	17.3	1,585	51.1	89
June.....	2,398		79.9	125	24.2	1,965	65.2	113
July.....	1,800	5,868	58.1	91	17.5	1,500	48.4	84
August.....	1,876		60.5	95	18.3	1,525	49.2	85
September.....	2,192		73.1	115	22.1	1,876	62.5	108
October.....	2,496	6,903	80.5	126	24.3	2,202	71.0	122
November.....	2,332		77.7	122	23.5	2,289	75.6	131
December.....	2,075		66.9	105	20.2	2,019	65.1	113
Unknown.....	2	2	.....	.....	.....	.....	.....	.....
Average.....	1,941	5,824	63.8	100	.....	1,750	.....	100

* Numbers given in Table 58 multiplied by 1.0607, the ratio between the population of Michigan in 1900 and the average estimated population of the period 1891-1900. The monthly and daily numbers are, therefore, directly comparable for the year and ten-year period.

Comparisons of the results of the year 1900 may be made with the preceding ten years of registration by means of the same table, which has been corrected for the estimated increase of population. The total number of marriages for the year 1900 is somewhat greater than the corrected average for the ten years preceding, but if the additional foreign marriages in Berrien county be deducted, the increase will not be especially marked, when it is considered that the period 1891-1900 includes several years of very serious financial depression, a condition which is always attended with a marked reduction in the marriage rate. The month of greatest frequency of marriages in the ten-year period was November, while the largest number in 1900 occurred in October. The month of least frequency of marriage was the same as that for the year 1900, namely, March.

NATIVITY OF PERSONS MARRIED IN MICHIGAN, 1900.

The facts in regard to the nativity of persons married in Michigan during the year 1900, which may be found in detail in Table III, page 88, for each county of the State, are summarized in Table 60 and are compared by means of five-year averages with the corresponding figures for preceding years of registration in Table 61.

Out of the 23,295 marriages during the year, 14,661 were those in which both the bridegroom and bride were of native birth. This corresponds to a percentage of 62.9. The number of foreign born couples was 3,154, or 13.5 per cent. The percentage of native born couples increased somewhat, on the whole, from the earlier years of registration until 1899, which may have been due in part to a decrease in the amount of immigration of marriageable persons into this State. A decrease, however, is noted from 1899, 64.2 per cent, to 1900, 62.9 per cent. The percentage of foreign born couples, which has decreased since the earlier years of registration, is correspondingly noted to rise from 13.3 per cent in 1899 to 13.5 per cent in 1900.

Table 60.—By nativity, the number and per cent of brides and bridegrooms returned for the year 1900.

Bridegrooms and brides—nativity specified.	Brides, 1900.			Bridegrooms, 1900.	
	Native born.	Foreign born.	Un-known.	Total of each nativity.	Per cent of each nativity.
Bridegrooms.... { Native born.....	14,661	1,911	407	16,979	72.9
{ Foreign born.....	3,060	3,154	80	6,294	27.0
{ Unknown.....	9	3	10	22	0.1
Brides..... { Total of each nativity.....	17,730	5,068	497	23,295	.....
{ Per cent of each nativity.....	76.1	21.8	2.1	.....	100.0

Table 61.—Nativity of marriages in Michigan for the years 1896-1900; compared with averages for six successive quinquennial periods, 1871-1900.

Years and periods averaged.	Nativity of marriages.—Per cent of total.				
	Both native born.	Both foreign born.	Foreign groom and native bride.	Native groom and foreign bride.	One or both unknown.
Average, 1871-75.....	59.7	18.5	12.3	7.0	2.6
Average, 1876-80.....	63.2	14.0	13.3	7.4	2.2
Average, 1881-85.....	58.2	19.4	12.4	8.7	1.3
Average, 1886-90.....	56.4	20.3	13.2	8.1	2.0
Average, 1891-95.....	58.0	18.2	13.2	7.9	2.6
Average, 1896-1900.....	63.1	14.0	12.5	8.0	2.3
Year 1896.....	61.1	16.2	12.5	8.0	2.3
Year 1897.....	63.3	13.6	12.3	8.1	2.7
Year 1898.....	64.2	13.3	12.2	8.0	2.2
Year 1899.....	64.2	13.3	12.6	7.7	2.2
Year 1900.....	62.9	13.5	13.1	8.2	2.1

AGES OF PERSONS MARRIED IN MICHIGAN, 1900.

Table II, beginning on page 83, shows the age distribution of persons married in Michigan by counties during the year, and Table IV, on page 90, shows the various age combinations of persons married, by sex; that is to say, how many males under 20 married females of the same age period; how many married females aged 20-24 years, 25-29 years, and so on in order. The group of ages at which the greatest number of marriages occurred is that in which both the males and females were aged from 20-24 years, the number of marriages at these ages being 4,518. Next in order comes the group of males aged 20-24 years and females under 20, of which the number was 3,820 and then the group of males aged 20-29 years, with females aged 20-24 years, numbering 3,398. These three groups include 11,736 marriages or over 50 per cent of the total number recorded. The proportions of males and females married at each age period may be seen in Tables 62 and 63, respectively, which compare the statistics for the year 1900 with the individual years, 1896-99, and six quinquennial periods.

In 1900 the favorite marriage age for males was the period 20-24 years, at which 38.0 per cent of males were married. This is an increase over the preceding year, corresponding to a slight decrease observed in the following period, 25-29 years.

With females the proportion of marriages under 20 years of age is very markedly less than it was during the earlier years of registration, being only 27.0 per cent. On the other hand the proportion at the age period 20-24 years, or 41.4 per cent, is somewhat greater than that recorded for the earlier years of registration, while the percentage at the age-period 25-29 years, 16.2 per cent, is much greater than formerly.

From 1871 to 1880, the proportion of females married under 20 years of age was greater than those married at the age period 20-24 years, but at present the ratios for these periods are about as 5 to 8. A general shifting of the distribution of ages at marriage may be observed towards the later periods.

Table 62.—Percentage of males married in Michigan at specified periods of age for the years 1896-1900; compared with averages for six quinquennial periods, 1871-1900.

Years and periods averaged.	Ages of males married, 1871-1900.														Unk.
	Under 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 +	
Average, 1871-75..	2.6	41.2	29.5	10.6	5.5	3.3	2.3	1.7	1.0	0.8	0.5	0.3	0.1	....	0.6
Average, 1876-80..	2.6	40.8	29.8	10.8	5.6	3.2	2.2	1.6	1.1	0.8	0.5	0.3	0.1	....	0.5
Average, 1881-85..	2.3	39.5	30.7	11.4	5.7	3.2	2.2	1.6	1.0	0.9	0.5	0.3	0.1	....	0.4
Average, 1886-90..	2.1	37.7	32.4	12.2	5.7	3.0	2.4	1.5	1.1	0.8	0.6	0.3	0.1	....	0.1
Average, 1891-95..	1.9	38.1	30.8	12.7	6.0	3.2	2.3	1.7	1.2	0.9	0.7	0.3	0.1	....	....
Average, 1896-1900	1.8	37.7	30.6	12.5	6.6	3.4	2.5	1.7	1.2	0.9	0.6	0.3	0.2	0.1	....
Year 1896.....	1.8	37.2	31.1	12.1	6.6	3.3	2.7	1.8	1.3	0.9	0.8	0.3	0.2	0.1	....
Year 1897.....	1.9	37.6	30.8	12.1	6.7	3.7	2.2	1.8	1.2	0.9	0.6	0.4	0.2	....	....
Year 1898.....	1.7	38.1	30.6	12.3	6.6	3.3	2.5	1.7	1.1	0.9	0.6	0.3	0.2	0.1	....
Year 1899.....	1.7	37.4	30.7	12.9	6.5	3.3	2.5	1.6	1.3	0.9	0.6	0.3	0.1	0.1	....
Year 1900.....	1.7	38.0	30.0	13.0	6.6	3.6	2.5	1.5	1.2	0.8	0.6	0.3	0.2	0.1	....

Table 63.—Percentage of females married in Michigan at specified periods of age for the years 1896-1900; compared with averages for six quinquennial periods, 1871-1900.

Years and periods averaged.	Ages of females married, 1871-1900.														Unk.
	Under 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 +	
Average, 1871-75..	36.9	36.5	12.7	5.0	3.0	2.0	1.3	0.8	0.5	0.3	0.2	....	....	....	0.9
Average, 1876-80..	37.4	37.4	11.7	4.7	3.1	1.9	1.3	0.8	0.5	0.3	0.2	....	....	....	0.7
Average, 1881-85..	33.8	38.7	13.7	4.9	3.1	1.9	1.3	0.8	0.5	0.3	0.2	0.1	....	....	0.6
Average, 1886-90..	32.8	39.5	14.2	5.2	2.9	1.9	1.3	0.9	0.6	0.4	0.2	0.1	....	....	0.2
Average, 1891-95..	30.8	40.6	14.3	5.3	3.1	2.0	1.4	1.0	0.6	0.5	0.2	0.1	....	....	....
Average, 1896-1900	28.1	41.3	15.5	5.7	3.4	2.0	1.5	1.0	0.7	0.5	0.2	0.1	....	....	....
Year 1896.....	29.1	40.7	15.3	5.4	3.4	2.0	1.5	1.1	0.7	0.5	0.2	0.1	....	....	0.1
Year 1897.....	29.6	40.6	15.0	5.6	3.3	1.9	1.4	1.0	0.7	0.6	0.2	0.1	....	....	....
Year 1898.....	28.0	41.9	15.1	5.7	3.4	1.9	1.5	1.0	0.6	0.4	0.3	....	....	....	....
Year 1899.....	26.8	41.8	16.1	5.7	3.4	2.1	1.5	1.0	0.8	0.5	0.2	0.1	....	....	0.1
Year 1900.....	27.0	41.4	16.2	6.0	3.5	2.1	1.4	0.9	0.7	0.5	0.2	0.1	....	....	....

PART IV.—DIVORCES IN MICHIGAN DURING THE YEAR 1900.

There were 2,418 divorces returned by county clerks to the Secretary of State as having been granted in Michigan during the year 1900. This number, as shown in Table 7, page xxvi, corresponds to a rate of 2.0 persons divorced per 1,000 living population, which is about one-tenth of the marriage rate for the year, 19.2 persons married per 1,000 population. It would not be correct, however, to say, on the basis of these figures, that there was one-tenth as many divorces as marriages in the State in proportion to the population. The marriages are based on the unmarried population at marriageable ages, while the divorces are drawn from the number of married couples in Michigan, hence, there can be no direct comparison between the frequency of marriage and divorce considered with reference to the population capable of contributing to these events without further analysis of the figures.

It is true, however, and a fact of great significance, that there is over one divorce *granted* for every ten marriages performed in the State during the year, and, as will be shown in Table I, page 96, the number of marriages during the year 1900 was only about seven times as great as the number of applications for divorce. This is a very striking commentary on the condition of social life in this State at the present time, and especially on the viciousness and hard-heartedness which must characterize a large proportion of the population of the State, when we consider that nearly 50 per cent of these cases involve, at least for the purpose of making an official court record, the charge of extreme cruelty. It is needless to say that too much consideration cannot be given to the alleged causes for divorce, as in many cases they would seem to be arranged more with reference to their appearance in the court records than to their intrinsic truthfulness; at least this would seem to be a reasonable inference from the large proportion of cases based on "extreme cruelty" and "desertion."

As compared with the preceding year, there was an increase of 200 divorces granted. The law for the registration of divorces in Michigan, under which they are returned by the county clerks to the Secretary of State, went into effect in 1897, so that the returns for 1898 were for the first complete year under the new law, although by a retroactive provision a report was made for the calendar year 1897. In some cases county clerks have neglected to use as much care as would have been desirable in making the returns, on the ground that no special compensation was provided in the law. Study of the tables printed in the report for 1899 and in the present report (Table I, page 96), and comparison of the totals there shown as based on the "summaries" returned by the county clerks with the results of the compilation of the schedules of divorces also returned by them, will show that there have been great variations in cer-

tain counties in making these reports, so that the results cannot be accepted in all cases with implicit confidence owing to the negligence or incapacity of certain county clerks. Thus in Table I, page 96, the number of divorces granted for the year was reported as 2,435 or 17 more than the number of divorces actually returned to the Secretary of State on the schedules. Comparisons of the returns by counties will show in what counties the two statements of the county clerks do not correspond. Some of these additional divorces may be those granted and not recorded on account of the non-payment of fees, and this fact points strongly to the necessity of a law which will provide for a complete record of every divorce granted in the State, by means of a preliminary declaration in the same way as marriages are put upon record through the filing of an affidavit for license to marry.

Comparing Table 66 of the 1899 report with Table I, page 96 of the present report, it is evident that the columns showing the number of bills pending on December thirty-first, 1899, 4,012, *ought* to correspond to the column in the table of the present report showing the number of bills pending on January first, 1900, 3,397. The decline of 615 cases over a single night shows that the county clerks could not make harmonious statements for the two years with respect to the actual number of cases before their courts. It is probable, however, that as the recording of divorces becomes a more thoroughly established system, that greater attention will be paid to accurate statements in this respect. For this reason, if for no other, the provision of the law requiring a preliminary fee in full discharge of all duties of the clerk in regard to the final record of divorces is most imperative, because the files of the courts are now encumbered in many cases with divorce proceedings which have long been finally passed upon, or have been withdrawn, but in which no final record has been made, so that the true number of cases actually pending is a very uncertain quantity.

CHILDREN AFFECTED BY DISSOLUTION OF FAMILIES, 1900.

Table 64 presents in condensed form the results given in detail in Table II, page 98, and Table III, page 108, by counties and causes alleged for divorce, with respect to the number of children in the families thus destroyed. Of the total number of divorces, 72.0 per cent were begun on applications of the wives and 28.0 per cent upon the applications of the husbands, as compared with 69.6 per cent and 30.4 per cent for the preceding year. In 1,091 cases, or nearly one-half of the total number of divorces, there were no children affected by the separation. The percentage of applications of wives in these cases is somewhat lower than the average, as is also true of families having two, three and four children. For families with one child, the percentage of applications of wives is greater than the average. The total number of children affected by divorces granted was 2,739, or an average of over one child to each divorce granted in the State.

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Table 64.—Children affected by divorces in Michigan during the year 1900, showing the relation of sex of complainant to size of family.

Complainants.	Total divorces granted, 1900.	Number of children in family.														
		None.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	16.	Unk.	
Total divorces...	2,418	1,091	620	358	149	81	44	19	14	10	7	3	1	1	20	
Husbands.....	678	342	134	104	49	26	9	1	5	2	3	.....	1	.....	2	
Wives	1,740	749	486	254	100	55	35	18	9	8	4	3	.....	1	18	
Per cent of husbands.....	28.0	31.3	21.6	29.1	32.9	32.1	20.5	5.3	35.7	20.0	42.9	0.0	100.0	0.0	10.0	
Per cent of wives.	72.0	68.7	78.4	70.9	67.1	67.9	79.5	94.7	64.3	80.0	57.1	100.0	0.0	100.0	90.0	
Total number of children affected	2,739	.....	620	716	447	324	220	114	98	80	63	30	11	16	....	

DURATION OF MARRIAGE PRIOR TO DIVORCE, 1900.

Table 65, derived from the same primary sources as the preceding table shows the duration of marriages terminated by divorce during the year. Out of 2,418 divorces granted in Michigan during the year 1900, 685 were of marriages which had existed less than five years, 665 were of marriages of from five to nine years duration; 406 of marriages that had lasted from ten to fourteen years, and so on down to 16 divorces of couples who had been married from forty to forty-four years, and two dissolutions of marriages that had existed for over half a century.

The percentage of applications of husbands is above the average for marriages severed by divorce within five years, and also for those lasting from ten to fourteen years. The percentage of wives applying for divorce is higher than the average for marriages that lasted from fifteen to nineteen years; while for the period five to nine years, the percentage is the same as the average. Above the lower periods the number of marriages is too small to give any accurate deductions from a single year.

Table 65.—Duration of marriages terminated by divorces granted in Michigan during the year 1900, showing the relation of sex of complainant to lapse of time before divorce.

Complainants.	Divorces granted, 1900.	Duration of marriage before divorce.																
		Years under five.					Five-year periods.											
		Under 1 year.	1.	2.	3.	4.	Under 5 years.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	50 to 54.	55 to 59.	Unk.
Total divorces..	2,418	64	126	167	167	161	685	665	406	292	164	107	51	23	16	1	1	7
Husbands	678	23	27	55	48	42	195	186	115	67	45	34	20	10	4	.....	.....	2
Wives.....	1,740	41	99	112	119	119	490	479	291	225	119	73	31	13	12	1	1	5
Per cent of hus- bands.....	28.0	35.9	21.4	32.9	28.7	26.1	28.5	28.0	28.3	22.9	27.4	31.8	39.2	43.5	25.0	.....	.....	28.6
Per cent of wives.	72.0	64.1	78.6	67.1	71.3	73.9	71.5	72.0	71.7	77.1	72.6	68.2	60.8	56.5	75.0	100.0	100.0	71.4

CAUSES OF DIVORCES GRANTED IN MICHIGAN, 1900.

Table 66 presents in very condensed form the general causes responsible for divorces during the year, as derived from the detailed statement given in Table III, page 108. The principal causes of divorce in Michigan, according to the records of the courts, are, in the order of their importance, cruelty, which was an element in 47.5 per cent of the total divorces granted; desertion, which affected 34.2 per cent of all divorces granted; nonsupport, which was a factor in 27.3 per cent. Minor causes are drunkenness, 5.1 per cent, and adultery, 3.8 per cent.

The distribution of these causes is different for the two sexes. Thus, of the husbands applying for divorces, 51.8 per cent pleaded desertion as an element of the charge, 42.5 per cent pleaded cruelty as a factor; and 9.1 per cent of the husbands made charges of adultery. Of the divorces granted on application of the wives, in 49.4 per cent cruelty was a factor, and in 37.6 per cent nonsupport contributed to the separation. Desertion was pleaded in 27.3 per cent of the cases, and adultery in only 1.8 per cent.

It will be noted that owing to the fact that two to three or even more grounds for divorce may be stated in the petition, it is impossible to say just how many divorces were due to cruelty, desertion, drunkenness, etc. In the percentages above given the causes referred to entered as factors with other causes. Cruelty, was given as the sole cause in 34.2 per cent of all cases; desertion in 27.1 per cent; nonsupport in 14.6 per cent; adultery in 2.5 per cent and drunkenness in 2.3 per cent. It cannot be supposed, however, that in the *alleged causes*, the actual causes leading to divorce are always given, so that the above statements must be accepted as in some measure as conventional distinctions and not the actual grounds of divorce.

Table 66.—Principal causes of divorce in Michigan during the year 1900, showing, by sex, the percentage of complainants from each cause.

Causes alleged.	Number of divorces granted, 1900.			Per cent of total.		
	Total.	To husbands.	To wives.	Total.	To husbands.	To wives.
ALL CAUSES	2,418	678	1,740	100.0	100.0	100.0
<i>Adultery</i>	93	62	31	3.8	9.1	1.8
Adultery (sole cause alleged).....	60	42	18	2.5	6.2	1.0
Adultery (with other causes).....	33	20	13	1.4	2.9	0.7
<i>Cruelty</i>	1,148	288	860	47.5	42.5	49.4
Cruelty (sole cause alleged).....	828	249	579	34.2	36.7	33.3
Cruelty (with other causes).....	320	39	281	13.2	5.8	16.1
<i>Desertion</i>	826	351	475	34.2	51.8	27.3
Desertion (sole cause alleged).....	655	324	331	27.1	47.8	19.0
Desertion (with other causes)	171	27	144	7.1	4.0	8.3
<i>Drunkenness</i>	124	12	112	5.1	1.8	6.4
Drunkenness (sole cause alleged).....	56	10	46	2.3	1.5	2.6
Drunkenness (with other causes).....	68	2	66	2.8	0.3	3.8
<i>Non-support</i>	659	4	655	27.3	0.6	37.6
Non-support (sole cause alleged).....	353	2	351	14.6	0.3	20.2
Non support (with other causes).....	306	2	304	12.7	0.3	17.5

PART V.—BIRTHS IN MICHIGAN DURING THE YEAR 1900.

The number of births in Michigan during the year 1900 according to the returns received from the county clerks, was 43,699, an increase of 1,881 births, as compared with the returns of the preceding year. The birth rate for 1900 was 18.1 per 1,000 estimated population. This rate includes stillbirths and may be compared with the rates given in Table 2, page xxx, from which it appears that it is lower than the birth rate of any previous year of registration in the State, with the single exception of 1899, which had the particularly low rate of 17.5.

If these statistics are of any value whatever as indicating the number of children born in the State, it would certainly seem that there has been a considerable decrease in the fecundity of the population.

The rate of living births per 1,000 population is shown in Table 3, page xxi, to be 17.8. This is exclusive of 538 stillbirths returned in births, but for 1900, as for the two preceding years, the stillbirths returned in deaths are not compared with nor added to the stillbirths returned in births, as was customary during the years 1874-97, inclusive, when both births and deaths were returned under the same general law.

As will be noted by examination of Table 3, there were 1,325 stillbirths registered in deaths, or 787 more than were returned with births under the old law.

SUMMARY OF THE ENUMERATION OF BIRTHS FOR THE YEAR 1900.

The following statements include the more important features of the enumeration of births in Michigan for the year 1900:

Total number of births returned, 1900.....	43,699
Birth rate per 1,000 population, 1900.....	18.1

Exclusive of stillbirths, there were:

Children born alive, 1900.....	43,161
Children born alive per 1,000 population, 1900.....	17.8

Compared with the previous year, we have:

Increase of births returned for 1900 (43,699) over the number returned for 1899 (41,818) ..	1,881

The following is the distribution of births returned according to sex:

Male children born, 1900.....	22,535
Female children born, 1900.....	21,093
Sex unknown or unspecified (47 of these stillborn).....	71
Males born per 100 births of females.....	107

The parent nativity of children born in 1900, exclusive of births to parents of different nativities, may be stated:

Born of parents both of native birth, 1900.....	19,923
Born of parents both of foreign birth, 1900.....	14,192

Of the 43,699 children born in 1900, according to the returns, there were:

Stillbirths (males, 282; females, 209; unknown, 47).....	538
Stillbirth rate per 1,000 population.....	0.2
Stillbirths per 1,000 living births.....	12.5

Plural births are of interest. Including seven sets of triplets, there were reported:

Twin children (males, 405; females, 399; unknown sex, 4)..... 308

The reported rate of illegitimacy is low for Michigan. In 1900 there were returned:

Illegitimate births (males, 177; females, 155)..... 322
 Illegitimate births per 1,000 births, 1900..... 7.6

BIRTHS RETURNED BY MONTHS, 1891-1900.

The number of births returned for each month of the calendar year is shown for the last decade in Table 67. As usual, the maximum number occurred in August and the minimum number in January. As the accuracy of registration is very much less during the earlier months in the year, owing to the remoteness of the date of enumeration, which is generally during May of the following year, it is probable that the low birth rate shown for January is purely fictitious. Owing to the imperfections of the statistics, no deductions of any value can be made as to the occurrence of births during the months and seasons of the year.

Table 67.—Births returned, by months, for the years 1891-1900 inclusive, with average for the ten-year period. (Stillbirths included.)

Years.	Total for year.	Months.												Unk.
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1891.....	50,812	3,629	3,534	4,345	4,238	4,465	4,078	4,293	4,702	4,646	4,340	4,098	4,391	53
1892.....	46,221	3,226	3,315	3,745	3,928	3,977	3,681	3,929	4,168	4,088	3,918	3,853	4,344	49
1893.....	47,722	3,346	3,391	4,069	3,934	3,924	3,901	4,158	4,351	4,246	4,165	3,916	4,263	58
1894.....	44,596	2,889	3,020	3,854	3,896	3,866	3,735	3,917	3,981	3,778	3,750	3,684	4,204	22
1895.....	46,273	3,204	3,240	3,827	3,742	4,022	3,745	3,980	4,346	4,214	3,997	3,750	4,159	38
1896.....	46,302	3,322	3,184	3,781	3,862	3,918	3,097	3,879	4,405	4,208	3,994	3,842	4,155	55
1897.....	43,688	3,295	3,207	3,777	3,654	3,794	3,423	3,739	3,863	3,853	3,717	3,571	3,767	28
1898.....	43,462	3,043	3,173	3,856	3,534	3,724	3,554	3,612	3,894	3,807	3,801	3,492	3,920	52
1899.....	41,818	3,099	3,134	3,681	3,652	3,494	3,199	3,633	3,785	3,758	3,454	3,262	3,636	31
1900.....	43,639	3,069	3,105	3,821	3,930	3,755	3,501	3,777	3,983	3,880	3,658	3,415	3,762	43
Av. 1891-1900...	45,459	3,212	3,230	3,876	3,837	3,894	3,651	3,803	4,148	4,048	3,879	3,688	4,060	43

NATIVITY OF PARENTS OF CHILDREN BORN IN MICHIGAN DURING 1900.

The distribution of parent nativity of children born during the year may be seen in Table 68. Nearly one-half of all the children born (45.6 per cent) had parents both of native birth. A little less than one-third of the children born during the year (32.5 per cent) had parents both of foreign birth, while the remainder was of mixed or unknown parent nativity. Of the total number of children born, according to reports from the county clerks, 28,708 or 65.7 per cent had parents one or both of native birth, and 22,819 or 52.2 per cent had parents one or both foreign born.

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Table 68.—Parent nativity of children born in Michigan, during the year 1900.
(Stillbirths included.)

Nativity of parents of children born, 1900.	Number of births, 1900.				Per cent of total.			
	Total.	Males.	Females.	Un-known.	Total.	Males.	Females.	Un-known.
All nativities.....	43,699	22,535	21,063	71	100.0	100.0	100.0	100.0
Both parents native born.....	19,028	10,302	9,592	34	45.6	45.7	45.5	47.9
Both parents foreign born.....	14,192	7,345	6,830	17	32.5	32.6	32.4	23.9
Foreign father and native mother..	5,291	2,660	2,621	10	12.1	11.8	12.4	14.1
Foreign mother and native father..	3,210	1,654	1,552	4	7.3	7.3	7.4	5.6
Unknown mother, father native....	123	67	56	.....	0.3	0.3	0.3	.....
Unknown mother, father foreign ..	71	39	31	1	0.2	0.2	0.1	1.4
Unknown father, mother native....	156	79	76	1	0.4	0.4	0.4	1.4
Unknown father, mother foreign ..	55	23	32	.....	0.1	0.1	0.2	.....
Both unknown.....	673	366	303	4	1.5	1.6	1.4	5.6
One or both native.....	28,708	14,762	13,897	49	65.7	65.5	65.9	69.0
One or both foreign.....	22,819	11,721	11,066	32	52.2	52.0	52.5	45.1

Table 69.—Parent nativity of children born in Michigan for each of the years 1891-1900, inclusive; with average for the ten-year period. (Stillbirths included.)

Years.	Nativity of parents of children,—per cent of total.										
	Both native born.	Both foreign born.	Foreign father and native mother.	Foreign mother and native father.	One or both unknown.	Father—			Mother—		
						Native.	Foreign.	Unknown.	Native.	Foreign.	Unknown.
1891.....	40.2	39.8	10.8	6.1	3.1	46.9	51.0	2.1	51.3	46.2	2.5
1892.....	39.7	39.7	10.9	6.3	3.3	46.7	51.0	2.3	51.3	46.2	2.5
1893.....	41.1	38.5	11.0	6.6	2.9	48.0	50.0	2.1	52.6	45.3	2.1
1894.....	43.0	35.6	11.4	6.8	3.3	50.4	47.9	1.7	54.9	42.5	2.6
1895.....	43.4	35.5	11.3	6.8	3.0	50.7	47.0	2.2	55.3	42.5	2.2
1896.....	43.0	35.5	11.8	6.8	3.0	50.0	47.5	2.5	55.3	42.5	2.3
1897.....	43.6	34.3	11.7	7.2	3.0	51.2	46.2	2.6	55.9	41.8	2.4
1898.....	44.8	32.9	12.0	7.3	3.0	52.4	45.2	2.4	57.5	40.6	2.0
1899.....	44.3	33.4	12.0	7.5	2.9	52.0	45.6	2.4	56.8	41.0	2.2
1900.....	45.6	32.5	12.1	7.3	2.5	53.2	44.7	2.0	58.1	39.9	2.0
Average, 1891-1900..	42.9	35.8	11.5	6.9	3.0	50.2	47.6	2.2	54.9	43.3	2.3

* Including cases where nativity of either parent is unknown.

Table 70.—Parent nativity of children born in Michigan during the year 1900, compared with averages for six quinquennial periods, 1871-1900. (Stillbirths included.)

Years and periods averaged.	Nativity of parents,—per cent of total.				
	Both native born.	Both foreign born.	Foreign father and native mother.	Native father and foreign mother.	One or both unknown.
Average, 1871-75.....	44.8	34.3	9.5	5.2	6.2
Average, 1876-80.....	46.0	34.1	11.0	5.7	3.1
Average, 1881-85.....	43.7	35.5	11.5	6.2	2.9
Average, 1886-90.....	42.7	37.6	10.7	6.2	2.8
Average, 1891-95.....	41.5	37.8	11.1	6.5	3.1
Average, 1896-1900.....	44.3	33.7	11.9	7.2	2.9
Year 1896.....	43.0	35.5	11.8	6.8	3.0
Year 1897.....	43.6	34.3	11.7	7.2	3.0
Year 1898.....	44.8	32.9	12.0	7.3	3.0
Year 1899.....	44.3	33.4	12.0	7.5	2.9
Year 1900.....	45.6	32.5	12.1	7.3	2.5

Comparisons of the figures given in Table 68 for the year 1900 may be made with preceding years and periods of registration by means of Tables 69 and 70. It appears that the percentage of children having both parents native born is slightly more than that for the preceding year. This ratio shows a slight tendency to increase during recent years of registration, being now higher than it was during the early five-year period, 1871-75. The percentage of children both of foreign birth shows some decrease as compared with recent years. Such ratios, however, as are given in these tables (Tables 68, 69 and 70) are not very satisfactory in any respect. The only proper comparisons of parent nativity are those made with the constituent population, and even then the individual nationalities should be taken, with their different age-distributions and statements of civil condition, before any definite and precise results can be obtained. Census data are not available for this purpose, and even if they were the statistics of births are so imperfect in themselves, that it seems hardly worth while to give very much consideration to these figures, although for some purposes the gross distribution of parent nativity may be of interest.

CLIMATOLOGICAL DATA FOR MICHIGAN, 1900.

The following data relating to the meteorological conditions in Michigan for the year 1900 have been kindly supplied to this Department by Mr. C. F. Schneider, Director of the Michigan State Weather Service in co-operation with the Climate and Crop Service of the Weather Bureau, U. S. Department of Agriculture. Fuller details may be found in the annual report of the State Weather Service for the year, but the data herewith presented will be found convenient for comparing with the mortality statistics contained in this report.

In connection with the text and tables on this subject, two maps are presented, reduced from those which appeared in the publication of the Weather Service, and showing the annual mean isotherms and prevailing winds (Map I) and the amount of precipitation in various parts of the State (Map II). It will be observed that the very important data contained in Table 75 are arranged according to the same geographical sections employed in the study of causes of death, (Table 18, p. lx), thus making the comparison of mortality statistics and meteorological data very convenient.

In Table 71 the temperature and amount of precipitation for the year are compared with the years 1888-99, both inclusive, this period extending back to the formation of the State Weather Service. The average of the statistics for these years constitutes the "normal" which is used as a basis of reference in making comparisons of the meteorology of the current year.

REVIEW OF THE YEAR 1900.

Annual Temperature.—The annual mean temperature for 1900 was 46.0 degrees, or 1.2 degrees *above* the normal, which is computed by averaging the yearly mean temperature of the 12 preceding years. March was comparatively the coldest month of the year, and also the coldest March on record, its mean being 22.8 degrees, or 5.4 below the normal. August was comparatively the warmest month of the year and was also the warmest August on record, its mean being 72.4, or 5.9 degrees above the normal.

The highest temperature of the year, 100 degrees, occurred at Owosso and Harbor Beach on August 4th and 5th respectively; the lowest, —38 degrees, occurred at Thomaston on February 25th and at Humboldt and Sidnaw on February 26th. The extremes of temperature observed in Michigan during the past 13 years are 104 degrees on August 3d, 1890, and July 19th, 1897, and —49 degrees on February 7th, 1899.

Annual Precipitation.—The annual mean total precipitation was 32.31 inches, or 1.27 inches *above* the normal, and 3.32 inches more than fell in 1899. The greatest monthly average, 4.81 inches, occurred in July; the

least monthly average, 0.76 of an inch, occurred in December. The distribution throughout the year was uneven as there was a deficiency during 8 months and an excess in the remaining 4 months,—February, July, August and November.

MAP I.—ANNUAL MEAN ISOTHERMS AND PREVAILING WINDS IN MICHIGAN, 1900.



METEOROLOGICAL CONDITIONS BY MONTHS, 1900.

January.—The mean temperature was 24.8, or 3.8 degrees above the normal. The highest temperature was 59 degrees on the 24th, at Berrien Springs; the lowest temperature was —26 degrees on the 31st, at Gladwin.

The average total precipitation was 1.31 inches, or 1.14 inches below the normal. The greatest monthly amount, 3.99 inches, occurred at Berrien Springs; the least monthly amount, a trace, occurred at Port Austin.

This is the warmest January for 8 years, and the driest one on record (13 years). On the 24th thunderstorms occurred quite generally in the southern counties, very unusual phenomena in Michigan during January.

The snowfall has been light for the month and very light since the beginning of winter, greatly retarding logging and lumbering operations in the Northern woods.

February.—The mean temperature was 16.6, or 4.0 degrees *below* the

MAP II.—TOTAL PRECIPITATION IN MICHIGAN, 1900.



normal. The highest temperature was 65 degrees on the 8th at Eloise, Wayne county, and Grape, Monroe county; the lowest temperature was —38 at Thomastown, Gogebic county, on the 25th, and at Humboldt, Marquette county, and Sidnaw, Houghton county, on the 26th.

The average total precipitation was 3.18 inches, or 1.42 inches *above* the normal. The greatest monthly amount, 8.00 inches, occurred at Berrien Springs; the least monthly amount, 0.44 of an inch, occurred at Humboldt.

In the past 12 years the months of February in 1889, 1895 and 1899 were colder than the one just past; the other nine were warmer. Feb-

ruary, 1890 (mean temperature 29.0 degrees), is the warmest on record. February, 1899, with a mean of 14.1, is the coldest on record.

The average total precipitation is the greatest ever recorded during any February since 1888, when State records were begun. Snow fell in greater quantities in the lower peninsula, and particularly in the southern counties, than ever before recorded. The normal or average February snowfall in the Southern counties is 9.2 inches, and the greatest record previous to February, 1900, is 16.7 inches in 1898; this year an average of 25.8 inches fell in February, most of which occurred during the last decade of the month.

In the Upper Peninsula the snowfall was comparatively light, being 16.6 inches, compared with the normal of 18.3 inches.

Table 71.—Temperature and amount of precipitation in Michigan during the year 1900, compared with previous years.

Year.	Temperature.					Average yearly precipitation (inches).	Average total snowfall (inches).
	Yearly mean.	Highest.	Date.	Lowest.	Date.		
1888.....	43.8	102	June 17.....	-36	{ Jan. 21..... } { Feb. 9..... }	28.68	67.9
1889.....	45.3	102	July 8.....	-33	Feb. 24.....	26.86	57.7
1890.....	45.6	104	Aug. 3.....	-35	Mar. 6.....	34.23	44.6
1891.....	46.2	103	Aug. 8.....	-28	Feb. 4.....	30.65	42.8
1892.....	44.6	101	July 26.....	-26	Jan. 20.....	33.69	50.1
1893.....	43.6	100	{ June 20..... } { July 13..... } { Aug. 10..... }	-31	Jan. 15.....	34.55	81.2
1894.....	46.8	102	July 27.....	-31	Feb. 24.....	28.00	45.2
1895.....	44.6	101	July 7.....	-38	Feb. 6.....	26.90	71.4
1896.....	45.8	100	June 6.....	-29	Feb. 17.....	31.74	42.8
1897.....	44.9	104	July 19.....	-43	Feb. 26.....	31.23	57.0
1898.....	46.0	101	{ July 24..... } { Aug. 23..... }	-35	Dec. 31.....	32.29	61.5
1899.....	44.0	100	{ July 24..... } { Aug. 19-20..... }	-49	Feb. 7.....	28.99	48.8
Normal..	45.2	102	July 22.....	-36	Feb. 6.....	30.65	55.9
1900.....	46.0	100	Aug. 4-5.....	-38	Feb. 25-26.....	32.31	59.8

March.—The mean temperature was 22.8 degrees, or 5.4 degrees below the normal. The highest temperature was 56 degrees on the 30th at St. Joseph; the lowest temperature was -29 degrees on the 23d at Humboldt.

The average total precipitation was 1.80 inches, or 0.54 of an inch below the normal. The greatest monthly amount, 4.46 inches, occurred at Fitchburg; the least monthly amount, 0.37 of an inch, occurred at Sault Ste. Marie.

This is the coldest March on record (back to and including 1887). While the precipitation was below the normal, the amount of snowfall was comparatively greater than during any previous March on record excepting March, 1899, when the average total fall was 22.5 inches. During March, 1900, the Southern counties were covered with snow most of the month. During the month and in fact during the entire winter, the snowfall has generally been much less than usual in the Northern counties and Upper Peninsula, and considerably above the normal in the Central and South-

ern counties. The average total precipitation for the State was less than during March, 1897, 1898 and 1899.

April.—The mean temperature was 46.0 degrees, or 2.3 degrees above the normal. The highest temperature was 85 degrees at Sidnaw on the 28th; the lowest temperature was 6 degrees at Wetmore on the 3d.

The average total precipitation was 1.71 inches, or 0.51 of an inch below the normal. The greatest monthly amount, 3.15 inches, occurred at Mackinaw City and Cheboygan; the least monthly amount, 0.30 of an inch, occurred at Lincoln.

May.—The mean temperature was 56.4 degrees, or 2.0 degrees above the normal. The highest temperature was 95 at Owosso on the 15th; the lowest temperature was 10 degrees at Omer on the 4th.

The average total precipitation was 2.68 inches, or 0.52 of an inch below the normal. The greatest monthly amount, 9.80 inches, occurred at Olivet; the least monthly amount, 0.17 of an inch, occurred at Northport.

June.—The mean temperature was 63.3 degrees, or 1.3 degrees below the normal. The highest temperature was 96 degrees on the 5d and 9th at Washington Harbor, Isle Royal; in the State proper the lowest temperature was 24 degrees on the 8th at Humboldt.

The average total precipitation was 2.68 inches, or 0.44 of an inch below the normal. The greatest monthly amount was 5.10 inches at Petoskey; the least monthly amount, 0.49 of an inch, occurred at Lincoln.

July.—The mean temperature was 67.6 degrees, or 1.4 degrees below the normal. The highest temperature was 99 degrees on the 5th at Mt. Clemens; the lowest temperature was 30 degrees on the 8th at Newberry, on the 10th at Roscommon, and on the 9th and 28th at Omer.

The average total precipitation was 4.81 inches, or 2.13 inches above the normal. The greatest monthly amount was 8.96 inches at Mackinaw City; the least monthly amount was 1.60 inches at Harbor Beach.

The average total precipitation is the greatest ever recorded during July; in the past 13 years the July precipitation has exceeded three inches only in 1896 and 1897, when the average totals were respectively 3.47 and 3.23 inches. During July, 1900, 103 stations reported rainfall and 41 stations had more than 5.00 inches; 26 had more than 6.00 inches; 18 had more than 7.00 inches, and 6 had more than 8.00 inches.

August.—The mean temperature was 72.4 degrees, or 5.9 degrees above the normal. The highest temperature was 100 degrees on the 4th at Owosso and on the 5th at Harbor Beach; the lowest temperature was 32 degrees at Humboldt on the 30th.

The average total precipitation was 3.81 inches or 1.39 inches above the normal. The greatest monthly amount was 8.31 inches at South Haven; the least monthly amount was 1.10 inches at Northport.

A wide departure from both the normal temperature and normal precipitation are the principal characteristics of the month; it is not only the warmest August on record since 1887 (when State records were first compiled) but the only August whose mean temperature has been above 70.0 degrees. In the past 13 years the average August precipitation has been greater during only two years; 1891 and 1896, when the average totals were respectively 4.01 and 4.08 inches.

September.—The mean temperature was 63.0 degrees, or 3.1 degrees above the normal. The highest temperature was 95 degrees on the 1st at

Traverse City and on the 11th at Mt. Clemens; the lowest temperature was 19 degrees at Humboldt on the 29th.

The average total precipitation was 3.23 inches, or 0.08 of an inch below the normal. The greatest monthly amount was 12.85 inches at Calumet; the least monthly amount was 0.49 of an inch at Carsonville.

An analysis of the average total precipitation shows that there was an exceedingly large excess over the Upper Peninsula and the Northern counties, but over the Central and Southern counties a marked deficiency; in the Upper Peninsula the excess amounted to 3.61 inches; in the Southern counties the deficiency was 1.41 inches.

October.—The mean temperature was 56.6 degrees, or 8.0 degrees above the normal. The highest temperature was 90 degrees on the 5th and 6th at Ovid and Owosso; the lowest temperature was 19 degrees at Baldwin on the 17th.

The average total precipitation was 2.71 inches, or 0.05 of an inch below the normal. The greatest monthly amount was 5.12 inches at Menominee; the least monthly amount was 0.52 of an inch at Newberry.

This month is by 4.3 degrees the warmest October on record.

November.—The mean temperature was 35.1 degrees, or 0.1 of a degree above the normal. The highest temperature was 76 degrees on the 1st at Berrien Springs, Plymouth and Stanton and on the 5th at Ludington; the lowest temperature was —8 degrees on the 26th at Humboldt.

The average total precipitation was 3.63 inches, or 1.06 inches above the normal. The greatest monthly amount was 7.67 inches at Berrien Springs; the least monthly amount was 0.20 of an inch at Humboldt.

December.—The mean temperature was 26.8 degrees, or 1.0 degree above the normal. The highest temperature was 60 degrees on the 3d at Plymouth; the lowest temperature was —18 on the 27th at Humboldt.

The average total precipitation was 0.76 of an inch, or 1.45 inches below the normal. The greatest monthly amount was 3.25 inches at Chatham. The least monthly amount was a trace at Birmingham and Port Austin.

CLIMATOLOGICAL DATA.

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Table 72.—Temperature, precipitation, sky and direction of wind in Michigan for the State and geographical sections, 1900.

Year and months by geographical sections.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.					Sky.				Prevailing direction of wind.	
	Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (un- melted).	Number of days with precipitation.	Number clear days.	Number partly cloudy days.	Number cloudy days.		
Year, 1900—STATE.	46.0	+1.2	100	Aug. 4-5	-38	Feb. 25-26	62	32.31	+1.27	4.60	59.8	8	11	9	10	s w	
January	24.8	+3.8	59		24	-26	31	43	1.31	-1.14	1.80	8.5	9	6	8	17	s w
February	16.6	-4.0	65		8	-38	25-26	59	3.18	+1.42	1.80	20.7	10	8	8	12	n w
March	22.8	-5.4	56		30	-29	23	56	1.40	-0.54	1.33	13.3	7	12	9	10	n w
April	46.0	+2.3	85		7-28	6	3	49	1.71	-0.51	2.10	2.0	7	15	7	8	n e
May	56.4	+2.0	95		15	10	4	62	2.68	-0.52	3.59	0.1	8	12	11	8	s w
June	63.3	-1.3	96		26	22	3-9	53	2.68	-0.44	2.35	0	7	17	8	5	s w
July	67.6	-1.4	99		5	30	8	57	4.81	-2.13	3.50	0	10	14	10	7	s w
August	72.4	+5.9	100		4-5	32	30	51	3.81	+1.39	3.32	0	9	14	11	6	s w
September	63.0	-3.1	97		3	19	29	52	3.23	-0.08	4.60	T	9	12	10	8	s w
October	56.6	-8.0	90		4-5-6	19	17	53	2.71	-0.65	2.80	T	7	15	8	8	s w
November	35.1	-0.1	76		1-5	-5	26	47	3.63	+1.06	2.40	9.7	11	6	6	18	n w
December	26.8	+1.0	60		3	-13	27	57	0.76	-1.45	1.05	5.5	6	5	8	18	s w
Year, 1900—I. UPPER PENINSULA	41.1	+1.4	99	Aug. 6	-38	Feb. 25-26	62	32.13	+1.34	3.60	62.4	8	13	6	11	w-n w	
January	20.1	+5.6	55		22	-19	31	43	0.98	-1.09	0.80	9.2	8	7	5	19	n w
February	8.4	-5.4	44		8	-38	25-26	59	1.95	+0.48	1.50	16.6	7	13	4	11	n w
March	18.3	-5.2	52		29-31	-29	23	56	1.09	-0.68	0.80	11.1	5	16	7	8	n w
April	43.0	+5.6	85		7-28	6	3	49	2.19	+0.01	2.10	1.6	5	17	5	8	w
May	51.6	+2.5	93		13	17	2-3-4-5	62	1.66	-1.47	1.36	T	6	16	7	8	w-n w
June	57.7	-0.3	95		25	22	3-9	52	2.52	-1.09	2.32	0	8	18	7	5	w
July	61.8	-3.7	92	6-19-30	30	3-8-13	20-30-31	50	5.32	+2.63	2.26	0	12	15	7	9	w-n w
August	68.3	+5.7	99		6	32	30	51	3.79	+1.01	3.00	0	8	16	8	7	w-s w
September	58.0	+1.5	90		1	19	29	52	6.71	+3.61	3.60	0.1	13	11	7	12	s w
October	54.4	+8.9	86		25	20	17	49	2.32	-1.01	1.91	T	9	14	8	9	s e
November	29.3	-1.9	71		1	-5	26	43	2.25	-0.57	2.40	13.4	11	6	6	18	n w
December	21.9	+1.4	52		31	-18	27	57	1.35	-0.49	1.05	10.4	8	5	7	19	w
Year, 1900—II. NORTHERN CO'S.	44.7	+1.4	99	Aug. 5	-26	Jan. 31	53	31.59	+1.67	4.60	60.4	8	11	8	11	n w	
January	23.5	+3.7	48		7	-26	31	42	1.51	-1.26	0.60	12.7	8	6	7	18	n w
February	15.6	-3.3	60		8	-25	26	49	2.54	+0.88	1.70	15.6	9	6	10	12	n w
March	21.4	-4.6	50		31	-20	16	50	1.30	-1.01	1.00	12.0	6	14	9	8	n w
April	44.3	+2.6	82		29	10	11	47	1.58	-0.72	2.00	1.9	5	16	7	7	s w
May	53.7	-1.7	90	13-14	10	4	4	50	1.69	-1.23	1.26	T	6	12	12	7	n w
June	62.2	-0.7	96		26	32	9	43	2.87	-0.18	1.75	0	7	17	8	5	n w
July	65.7	-2.3	95		4-5	30	9-10-28	49	5.36	+2.74	3.50	0	11	14	9	8	s w
August	71.2	+6.2	99		5	30	3	48	3.71	+1.12	2.33	0	8	15	10	6	s w
September	62.4	+4.1	95		1	28	28	49	4.20	+1.50	4.60	0	10	10	10	10	s w
October	55.8	+8.3	85		6	19	17	53	2.78	-0.20	2.80	T	7	14	7	10	s w
November	34.5	-0.2	76		5	8	16	47	3.38	+1.24	1.63	10.3	10	6	5	19	n w
December	26.3	+1.4	52	19-21-22	-13		16	39	0.97	-1.21	0.75	7.9	7	4	7	20	n w

Table 72.—Concluded.—Temperature, precipitation, sky and direction of wind in Michigan for the State and geographical sections, 1900.

Year and months by geographical sections.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.					Sky.			Prevailing direction of wind.	
	Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (un- melted).	Number of days with precipitation.	Number clear days.	Number partly cloudy days.		Number cloudy days.
Year, 1900—III. CENTRAL Co's....	47.0	+0.9	100	Aug. 5	-29	Feb. 27	57	29.66	+1.26	3.10	46.3	8	10	10	10	s w
January	25.5	+2.5	50	22	-15	1	40	1.40	-1.48	1.05	7.3	8	6	8	17	s w
February	17.9	-3.2	64	8	-29	27	48	3.02	+1.58	1.50	17.4	10	6	10	12	n w
March	23.5	-5.9	49	31	-13	12	39	1.80	-0.66	1.10	11.7	7	10	13	8	s w
April	46.3	+1.5	82	21	20	4-9-10 11-12-13	48	1.75	-0.45	1.00	1.7	7	15	7	8	n e-s w
May	57.4	+0.8	89	26	20	5-9	52	3.13	+0.20	2.00	T	9	9	12	10	n e-s w
June	64.6	-1.6	94	25	29	15-19	53	2.00	-0.47	1.70	0	7	15	10	5	s w
July	69.4	-1.0	97	6	31	3	67	3.19	+0.60	2.00	0	9	14	11	6	s w
August	73.4	+6.1	100	5	40	4-29	60	4.52	+2.38	3.10	0	9	12	12	7	s w
September	64.0	+3.4	92	1-11	31	18	47	1.68	-1.00	1.50	0	6	12	12	6	s w
October	57.2	+8.2	88	4-5-6	21	17-18	52	2.99	+0.40	2.20	0	6	14	9	8	s w
November	36.9	0.0	76	1	8	13-16	42	3.73	+1.61	2.30	5.8	10	6	8	16	w-n w
December	27.5	+0.4	58	1	-3	16-26	38	0.45	-1.39	0.48	2.4	4	4	10	17	s w
Year, 1900—IV. SOUTHERN Co's....	48.6	+1.1	100	Aug. 4	-20	Feb. 27	50	32.76	+1.14	3.59	61.6	9	11	9	10	s w
January	27.2	+3.8	50	24	-16	1	41	1.30	-0.96	1.80	6.1	10	5	9	17	s w
February	19.8	-4.1	65	8	-20	27	48	3.98	+1.93	1.80	25.8	12	7	8	13	w
March	25.5	-6.5	56	30	-14	12	48	2.36	-0.21	1.33	15.5	9	9	9	13	n w
April	47.9	+1.4	84	28	18	1	44	1.58	-0.57	1.00	2.3	8	14	7	9	n e
May	59.8	+2.4	95	15	25	5	47	3.46	-0.16	3.59	0.3	9	11	11	9	s w
June	65.9	-1.9	94	25	37	4	42	2.84	-0.40	2.35	0	8	17	7	6	n e
July	71.1	-0.4	99	5	39	12	43	4.84	+2.16	3.34	0	10	15	10	6	s w
August	74.9	+6.8	100	4	45	13	45	3.61	+1.28	3.32	0	9	14	12	5	s w
September	65.6	-3.2	97	3	30	18	45	1.34	-1.41	1.12	0	6	14	10	6	s w
October	58.1	+7.6	90	4-5-6	21	16	50	2.78	+0.13	2.40	0	6	16	8	7	s e-s w
November	38.0	-0.8	76	1	0	30	43	4.22	+1.23	2.00	9.0	13	6	6	18	s w
December	29.4	+1.0	60	30	-3	8-16	37	0.45	-1.88	0.40	2.6	5	6	10	15	s w

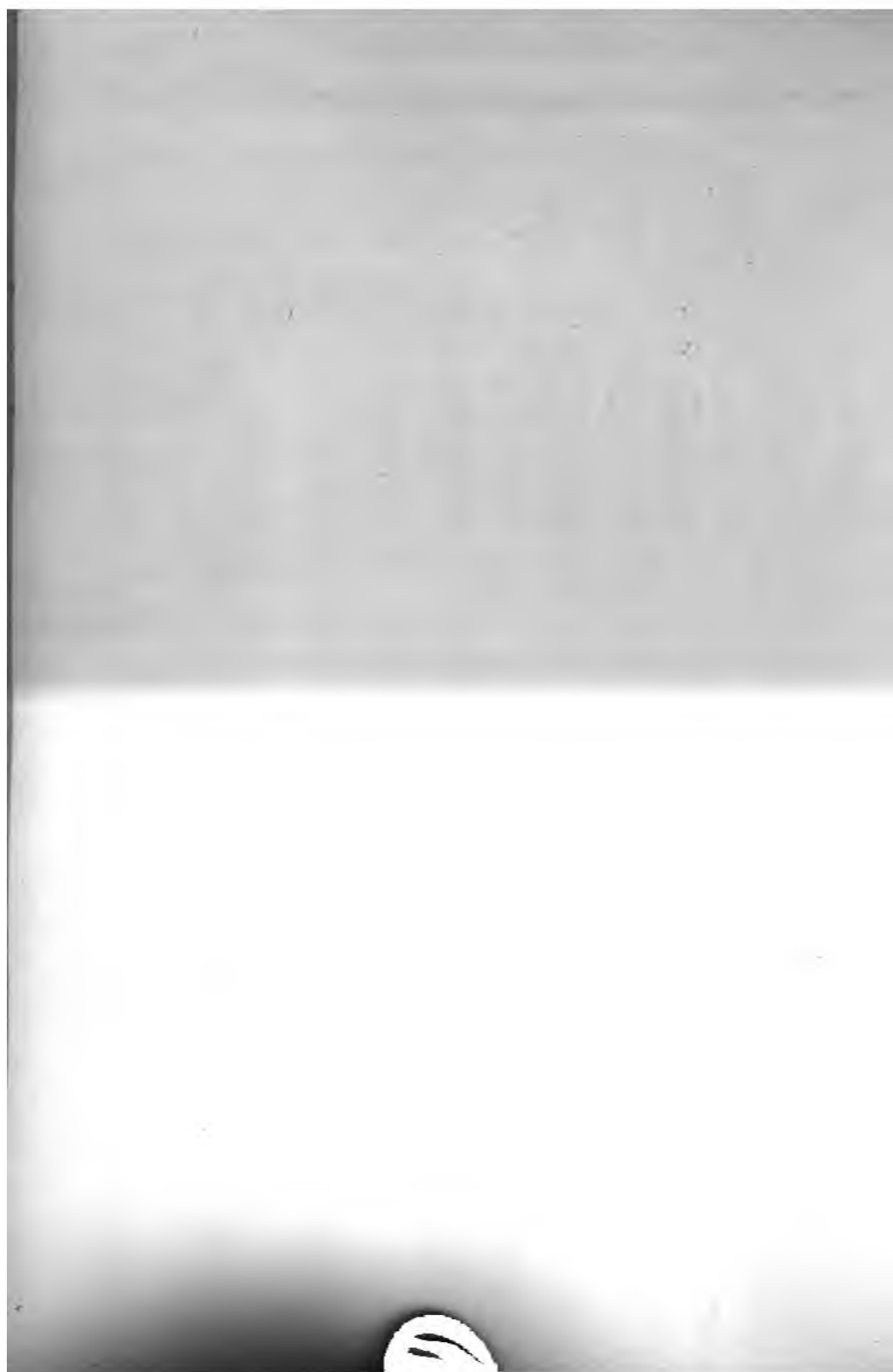
CLIMATOLOGICAL DATA.

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Table 73.—Relative humidity, wind movement and atmospheric pressure in Michigan during the year 1900.

Year and months, 1900.	Mean relative humidity (per cent).	Wind movement (in miles).			Atmospheric pressure reduced to 32° and sea level.					
		Average total movement.	Average hourly velocity.	Highest velocity with direction from and date.	Mean.	Highest.	Date.	Lowest.	Date.	Absolute range.
Year, 1900 ...	80	7,168	9.8	52-w-Nov. 21	30.01	30.67	Dec. 15	29.07	Feb. 8	1.60
January	86	8,466	11.4	48-n w-10	30.01	30.53	8	29.33	24	1.20
February	87	7,442	11.1	42-s e-6 42-w-9 42-nw-28	30.00	30.63	27	29.07	8	1.56
March	82	8,344	11.2	50-w-16	30.06	30.60	5	29.27	14	1.33
April	72	6,281	8.7	49-n w-30	30.06	30.46	4	29.53	18	0.93
May	71	6,700	9.0	35-n-9	29.96	30.29	9	29.48	2	0.81
June	71	6,237	8.7	38-n w-29	29.95	30.29	15	29.60	26	0.79
July	75	7,076	9.5	45-s e-10	29.93	30.21	1	29.42	8	0.79
August	81	5,351	7.2	45-s e-26	30.00	30.26	4	29.59	24	0.67
September...	81	6,744	9.4	46-s w-11	30.02	30.35	27, 28	29.37	11	0.96
October	84	6,572	8.8	39-n w-16	30.09	30.45	24	29.56	6	0.86
November...	84	8,069	11.2	52-w-21	30.03	30.61	16	29.33	21	1.28
December ...	86	8,710	11.7	49-n w-8	30.03	30.67	15	29.29	23	1.38

TABLES
RELATING TO
DEATHS
AND
CAUSES OF DEATH
IN
MICHIGAN
DURING THE
YEAR 1900.



TABLES
RELATING TO
DEATHS
AND
CAUSES OF DEATH
IN
MICHIGAN
DURING THE
YEAR 1900.

PRIMARY TABLES RELATING TO DEATHS AND CAUSES OF DEATH IN MICHIGAN DURING THE YEAR 1900.

TABLE I.—Deaths in Michigan, by months, counties and sex, during the year 1900. (Stillbirths included.)

TABLE II.—Deaths in Michigan, by ages, counties and sex, during the year 1900. (Stillbirths included.)

TABLE III.—Causes of death in Michigan, by months, ages and sex, during the year 1900. (Stillbirths included.)

TABLE IV.—Causes of death in Michigan, by counties, during the year 1900. (Stillbirths included.)

TABLE V.—Deaths in Michigan cities, by months and sex, during the year 1900. (Stillbirths included.)

TABLE VI.—Deaths in Michigan cities, by ages and sex, during the year 1900. (Stillbirths included.)

NOTE.—*Secondary tables*, containing death rates and other ratios, and *comparative tables*, displaying the mortality of Michigan for the year 1900 in connection with previous years and other States and countries, may be found on preceding pages of this Report, together with the descriptive text.

DEATHS.

TABLE I.—Deaths in Michigan, by months, counties and sex, during the year 1900.
(Stillbirths included.)

State and counties.	Sex.	Year, 1900.	Months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
STATE...	Totals..	33,778	2,684	2,608	3,135	3,121	2,823	2,326	2,578	2,905	3,369	2,832	2,520	2,697
	Males..	17,948	1,418	1,424	1,660	1,629	1,504	1,266	1,411	1,615	1,775	1,468	1,339	1,439
	Fem...	15,772	1,260	1,268	1,471	1,486	1,315	1,067	1,160	1,376	1,589	1,360	1,181	1,251
	Unk...	58	7	6	4	6	4	3	7	4	5	5	.....	7
Alcona.....	Totals..	45	3	2	2	4	6	3	4	4	6	2	3	6
	Males..	28	3	1	2	2	3	3	2	2	4	1	3	4
	Fem...	17	.....	1	2	2	3	.....	2	2	2	1	.....	2
Alger.....	Totals..	32	1	4	3	2	2	3	3	5	7	1	1	.....
	Males..	19	.....	4	2	1	1	1	1	3	4	1	1	.....
	Fem...	13	1	.....	1	1	1	2	2	2	3	.....	.....	.....
Allegan....	Totals..	444	43	35	37	47	36	30	42	36	46	29	38	35
	Males..	244	28	20	22	24	21	11	26	21	24	14	20	13
	Fem...	200	15	15	15	23	15	9	16	15	22	15	18	22
Alpena.....	Totals..	275	22	23	23	15	26	24	26	42	24	15	21	14
	Males..	144	13	13	13	5	12	14	13	22	13	8	11	7
	Fem...	131	9	10	10	10	14	10	13	20	11	7	10	7
Antrim.....	Totals..	273	23	15	28	18	16	26	21	35	26	26	16	23
	Males..	182	12	10	10	7	7	13	8	18	10	13	5	19
	Fem...	140	11	5	17	11	9	13	13	17	16	13	11	4
	Unk...	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Arenac.....	Totals..	120	9	6	7	13	12	7	9	12	11	14	7	13
	Males..	65	6	4	2	6	6	5	3	6	7	7	6	7
	Fem...	55	3	2	5	7	6	2	6	6	4	7	1	6
Baraga.....	Totals..	39	3	3	4	5	3	2	2	2	9	1	1	4
	Males..	17	.....	.....	2	3	2	1	1	1	6	1	.....	1
	Fem...	21	3	3	2	2	1	1	1	1	3	.....	1	3
	Unk...	1	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....
Barry.....	Totals..	277	26	29	24	24	27	21	14	21	27	31	16	17
	Males..	152	12	20	11	12	14	7	10	12	18	17	10	9
	Fem...	124	14	9	13	12	13	14	4	9	9	14	6	7
	Unk...	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Bay.....	Totals..	873	73	82	71	82	68	58	52	85	105	69	66	62
	Males..	465	43	48	36	49	36	32	27	47	64	31	30	32
	Fem...	406	29	34	35	33	31	26	25	38	51	38	36	30
	Unk...	2	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
Benzie.....	Totals..	121	5	12	13	10	10	6	7	9	23	13	2	11
	Males..	64	3	8	3	8	6	2	3	3	16	7	2	3
	Fem...	56	2	4	10	2	4	4	3	6	7	6	.....	8
	Unk...	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....
Berrien....	Totals..	606	55	48	55	62	47	43	45	51	47	52	43	58
	Males..	327	32	24	28	35	24	25	25	26	24	24	26	34
	Fem...	276	23	23	26	27	23	18	20	24	23	28	17	24
	Unk...	3	1	1	1	.....	.....	.....	.....	1	.....	.....	.....	.....
Branch.....	Totals..	403	31	26	36	54	30	27	29	33	46	37	31	23
	Males..	205	17	10	19	26	9	14	17	21	27	18	12	15
	Fem...	198	14	16	17	28	21	13	12	12	19	19	19	8
Calhoun....	Totals..	663	48	62	74	59	47	61	57	40	51	50	52	62
	Males..	332	16	40	35	23	25	33	28	21	26	25	28	32
	Fem...	331	32	22	39	36	22	28	29	19	25	25	24	30
Cass.....	Totals..	289	25	18	34	33	26	17	13	30	25	19	29	29
	Males..	150	15	13	18	19	12	9	7	16	14	8	8	11
	Fem...	138	10	5	16	13	14	8	6	14	11	11	21	18
	Unk...	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Charlevoix.	Totals..	198	15	9	14	30	12	17	13	25	23	17	12	11
	Males..	113	6	8	8	14	7	9	10	11	15	10	7	8
	Fem...	84	9	1	6	15	5	8	3	14	8	7	5	3
	Unk...	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....

VITAL STATISTICS OF MICHIGAN, 1900.

TABLE I.—Continued.—Deaths in Michigan, by months, counties and sex, 1900.

Counties.	Sex.	Year, 1900.	Months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Cheboygan...	Totals..	178	17	9	12	10	16	10	9	21	23	21	12	18
	Males..	104	12	7	8	6	12	3	4	9	13	10	7	13
	Fem... 73	5	2	4	4	4	7	5	12	10	10	5	5	5
	Unk... 1											1		
Chippewa....	Totals..	302	16	20	23	26	15	21	26	28	31	30	35	31
	Males..	184	11	10	13	13	8	14	17	16	18	19	24	21
	Fem... 118	5	10	10	13	7	7	9	12	13	11	11	11	10
Clare.....	Totals..	161	5	8	4	9	14	8	8	11	10	11	6	7
	Males..	58	4	5	1	6	4	8	3	5	6	6	3	7
	Fem... 43	1	3	3	3	10		5	6	4	5	5	3	
Clinton.....	Totals..	321	30	26	33	22	21	24	19	27	41	33	21	24
	Males..	159	15	18	16	9	6	13	6	16	22	10	15	13
	Fem... 162	15	8	17	13	15	11	13	11	19	23	6	11	
Crawford....	Totals..	22				4	2			2	3	2	7	1
	Males..	17				2	2	1		2	3	2	4	1
	Fem... 5				2							3		
Delta.....	Totals..	383	26	30	25	34	28	25	21	58	51	33	36	16
	Males..	238	18	23	15	21	17	14	14	37	31	19	22	7
	Fem... 145	8	7	10	13	11	11	7	7	21	20	14	14	9
Dickinson...	Totals..	248	22	14	26	17	24	20	19	22	22	25	17	20
	Males..	153	11	6	18	9	15	14	12	18	14	17	8	11
	Fem... 95	11	8	8	8	9	9	6	7	4	8	8	9	9
Eaton.....	Totals..	399	25	36	36	31	27	31	28	30	47	33	35	40
	Males..	221	15	22	21	17	17	17	18	18	25	18	13	20
	Fem... 177	10	14	15	14	10	14	10	12	22	14	22	20	20
	Unk... 1											1		
Emmet.....	Totals..	223	11	14	24	14	13	14	24	28	25	24	16	16
	Males..	131	7	6	17	8	9	8	17	18	11	12	9	9
	Fem... 92	4	8	7	6	4	6	7	10	14	12	7	7	
Genesee.....	Totals..	551	35	40	44	50	54	29	36	42	52	53	59	57
	Males..	267	17	21	14	34	28	15	17	27	21	22	22	29
	Fem... 284	18	19	30	16	26	14	19	15	31	31	37	28	
Gladwin.....	Totals..	70	5	8	4	9	7	6	5	11	6	5	1	3
	Males..	35		3	4	3	1	4	3	6	3	4	1	3
	Fem... 35	5	5		6	6	2	2	5	3	1			
Gogebic.....	Totals..	267	15	13	19	23	24	14	27	41	32	17	17	25
	Males..	149	10	7	10	11	17	10	11	26	17	8	8	14
	Fem... 118	5	6	9	12	7	4	16	15	15	9	9	11	
G'd Traverse..	Totals..	305	27	19	24	30	22	32	15	30	34	24	23	25
	Males..	166	9	10	12	18	13	20	10	14	18	14	15	13
	Fem... 137	18	9	12	12	9	11	5	16	15	10	8	12	
	Unk... 2						1				1			
Gratiot.....	Totals..	398	24	36	25	39	38	29	22	30	40	44	42	29
	Males..	184	11	18	12	11	15	10	12	11	24	18	23	19
	Fem... 213	13	17	13	28	23	19	10	19	16	26	19	10	
	Unk... 1		1											
Hillsdale....	Totals..	408	37	32	42	36	24	20	28	31	40	38	38	33
	Males..	203	17	15	20	20	15	16	13	15	16	20	20	16
	Fem... 203	20	16	22	16	9	13	15	16	24	18	18	16	
	Unk... 2		1										1	
Houghton....	Totals..	954	75	74	72	78	87	74	58	126	118	65	53	74
	Males..	553	35	48	50	41	51	45	33	68	73	33	29	47
	Fem... 392	37	26	22	36	35	29	24	57	45	31	24	24	26
	Unk... 9	3			1	1		1	1		1		1	
Huron.....	Totals..	357	26	36	37	32	32	21	22	30	35	38	24	24
	Males..	186	15	18	16	18	14	8	14	17	18	22	15	11
	Fem... 171	11	18	21	14	18	13	8	13	17	16	9	13	

DEATHS.

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TABLE I.—Continued.—Deaths in Michigan, by months, counties and sex, 1900.

Counties.	Sex.	Year. 1900.	Months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Ingham	Totals..	578	53	41	67	57	49	39	37	42	71	42	30	50
	Males..	273	26	19	29	25	26	18	21	22	35	21	7	24
	Fem... 305	27	22	38	32	23	21	16	20	36	21	23	26	
Ionia	Totals..	502	39	41	54	39	44	35	25	46	54	52	38	35
	Males..	249	19	14	32	16	37	14	12	21	29	22	23	20
	Fem... 252	20	27	22	23	17	21	13	25	24	30	15	15	
	Unk... 1									1				
Iosco	Totals..	121	11	18	3	14	4	10	7	12	13	10	5	14
	Males..	66	5	12	1	6	3	9	4	8	4	5	4	5
	Fem... 55	6	6	2	8	1	1	3	4	9	5	1	9	
Iron	Totals..	76	2	9	5	6	6	1	8	8	8	4	11	8
	Males..	44	1	4	4	3	4	...	7	5	4	3	3	6
	Fem... 32	1	5	1	3	2	1	1	3	4	1	8	2	
Isabella	Totals..	302	21	31	32	25	24	15	14	23	44	29	23	21
	Males..	176	14	19	19	16	14	11	8	13	23	14	11	14
	Fem... 126	7	12	13	9	10	4	6	10	21	15	12	7	
Jackson	Totals..	597	53	65	49	58	41	43	43	54	53	52	47	39
	Males..	323	25	38	27	26	22	23	25	29	33	28	26	23
	Fem... 272	28	27	22	32	19	19	17	25	20	26	21	16	
	Unk... 2						1	1						
Kalamazoo	Totals..	737	42	44	54	98	76	44	57	53	94	63	57	55
	Males..	386	19	20	33	54	46	29	28	29	50	33	27	18
	Fem... 351	23	24	21	44	30	15	29	24	44	30	30	37	
Kalkaska	Totals..	106	8	6	9	5	12	10	7	13	18	9	5	3
	Males..	63	6	1	6	3	8	7	5	7	8	6	3	3
	Fem... 41	2	4	3	2	4	3	2	6	10	3	2	...	
	Unk... 1		1											
Kent	Totals..	1,893	208	150	188	179	143	123	145	137	154	154	162	150
	Males..	983	99	77	98	99	71	64	76	68	70	81	106	75
	Fem... 909	100	73	90	80	72	59	69	69	69	84	73	57	74
	Unk... 1													1
Keweenaw	Totals..	45	3	4	2	6	2	...	3	5	4	7	4	5
	Males..	22	2	2	1	1	...	...	2	4	...	4	2	4
	Fem... 23	1	2	1	5	2	...	1	1	1	4	3	2	1
Lake	Totals..	60	5	4	7	4	4	3	5	6	7	1	8	6
	Males..	36	3	3	2	1	2	3	4	3	6	1	5	2
	Fem... 24	2	1	5	3	2	...	1	3	3	1	3	3	
Lapeer	Totals..	356	26	21	32	32	32	18	21	35	41	35	26	37
	Males..	198	11	15	15	23	18	9	11	20	24	15	17	20
	Fem... 157	14	6	17	9	14	9	10	10	15	17	20	9	17
	Unk... 1		1											
Leelanau	Totals..	155	11	15	11	17	22	11	14	12	15	10	6	11
	Males..	74	6	6	3	6	14	4	5	6	8	7	4	5
	Fem... 81	5	9	8	11	8	7	7	9	6	7	3	2	6
Lenawee	Totals..	687	65	55	62	50	66	48	47	39	73	68	59	55
	Males..	362	35	24	32	23	38	30	26	19	35	40	37	23
	Fem... 325	30	31	30	27	28	18	21	20	38	28	22	32	
Livingston	Totals..	252	25	27	31	26	26	19	12	16	12	22	19	17
	Males..	127	9	13	16	16	14	9	9	9	4	11	10	7
	Fem... 125	16	14	15	10	12	10	3	7	8	11	9	10	
Luce	Totals..	29	...	...	1	5	1	5	3	4	3	3	...	4
	Males..	14	...	...	1	1	1	2	3	...	1	2	...	3
	Fem... 15	...	...	...	4	...	3	...	4	2	1	...	1	
Mackinac	Totals..	77	1	6	4	5	11	6	6	14	10	5	6	3
	Males..	43	1	4	2	4	6	4	3	11	2	3	2	1
	Fem... 34	...	2	2	1	5	2	3	3	3	8	2	4	2

DEATHS.

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TABLE I.—Concluded.—Deaths in Michigan, by months, counties and sex, 1900.

Counties.	Sex.	Year, 1900.	Months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Osceola	Totals..	255	20	25	24	18	27	14	13	20	33	20	18	23
	Males..	137	11	14	16	11	13	8	4	13	16	12	10	9
	Fem... 118		9	11	8	7	14	6	9	7	17	8	8	14
Oscoda	Totals..	6			3		1	1			1			
	Males..	2					1				1			
	Fem... 3				2			1						
	Unk... 1				1									
Otsego	Totals..	75	5	4	6	9	6	3	5	3	9	9	6	10
	Males..	39	2	2	2	6	5	1	3	1	4	4	4	5
	Fem... 36		3	2	4	3	1	2	2	2	5	5	2	5
Ottawa	Totals..	527	56	39	58	47	49	33	40	44	53	35	30	43
	Males..	277	25	18	35	28	22	15	22	27	31	19	15	20
	Fem... 249		31	21	23	19	27	18	18	17	21	16	15	23
	Unk... 1										1			
Presque Isle..	Totals..	52	3	4	3	5	5	4	3	7	4	4	5	5
	Males..	25	2	3	2	2	2	3	1	1	2	2	2	3
	Fem... 27		1	1	1	3	3	1	2	6	2	2	3	2
Roscommon..	Totals..	14	1	1			2	1	2	1		2	2	2
	Males..	8		1			1		2			1	1	2
	Fem... 6		1				1	1		1		1	1	
Saginaw	Totals..	1,095	80	87	106	74	80	75	81	106	103	106	94	103
	Males..	595	45	45	57	47	40	50	34	56	52	53	51	65
	Fem... 500		35	42	49	27	40	25	47	50	51	53	43	38
St. Clair	Totals..	765	70	62	80	74	47	44	67	68	74	55	68	56
	Males..	416	39	31	46	45	25	28	36	33	33	30	36	34
	Fem... 348		31	31	34	29	22	16	31	35	41	24	32	22
	Unk... 1										1			
St. Joseph....	Totals..	327	30	19	29	34	26	27	17	26	34	27	27	31
	Males..	177	16	8	17	17	19	17	7	16	15	14	13	18
	Fem... 150		14	11	12	17	7	10	10	10	19	13	14	13
Sanilac	Totals..	413	32	41	44	38	32	28	23	33	47	37	30	28
	Males..	210	19	13	24	15	20	12	11	18	32	18	13	15
	Fem... 203		13	28	20	23	12	16	12	15	15	19	17	13
Schoolcraft..	Totals..	109	11	6	7	7	14	4	9	10	17	4	11	9
	Males..	54	4	5	1	3	4	2	6	4	10	3	8	4
	Fem... 55		7	1	6	4	10	2	3	6	7	1	3	5
Shiawassee....	Totals..	445	38	36	41	41	32	29	34	27	46	37	43	41
	Males..	239	17	23	22	25	12	17	19	15	28	19	22	20
	Fem... 206		21	13	19	16	20	12	15	12	18	18	21	21
Tuscola	Totals..	491	35	44	57	50	34	30	34	38	45	56	29	39
	Males..	244	19	25	30	27	15	10	21	22	21	23	14	17
	Fem... 246		15	19	27	23	19	20	13	16	24	33	15	22
	Unk... 1		1											
Van Buren....	Totals..	447	35	32	41	64	36	28	34	40	32	41	33	31
	Males..	227	18	10	19	37	19	18	20	16	15	22	19	14
	Fem... 219		17	22	22	27	17	10	14	24	17	19	14	16
	Unk... 1													1
Washtenaw...	Totals..	613	43	60	65	53	60	38	48	36	59	53	47	51
	Males..	312	28	28	28	30	31	23	24	21	31	19	22	27
	Fem... 300		15	32	37	23	29	15	23	15	28	34	25	24
	Unk... 1								1					
Wayne	Totals..	5,775	440	454	544	568	517	398	587	519	460	427	393	468
	Males..	2,975	237	231	287	276	259	197	327	275	222	219	200	245
	Fem... 2,796		202	222	257	292	258	201	260	243	237	208	193	223
	Unk... 4		1	1						1	1			
Wexford	Totals..	269	15	18	20	27	22	12	19	28	36	30	24	18
	Males..	150	10	10	15	16	15	6	9	17	17	15	11	9
	Fem... 119		5	8	5	11	7	6	10	11	19	15	13	9

TABLE II.—Deaths in Michigan by ages, counties

State and counties.	Sex.	Total deaths at all ages, 1900.*	Still-born.	Ages in years.				
				Under 1 year.†	1.	2.	3.	4.
STATE	Total	33,778	1,325	6,866	1,366	587	359	265
	Males.....	17,948	737	3,836	721	310	180	142
	Females.....	15,772	540	3,022	645	277	179	123
	Unknown.....	58	48	8				
Alcona.....	Total	45	1	7	2	3		
	Males.....	28		3	2	2		
	Females.....	17	1	4		1		
	Unknown.....							
Alger.....	Total	32	1	16	1			
	Males.....	19		9	1			
	Females.....	13	1	7				
	Unknown.....							
Allegan.....	Total	444	11	62	15	2	2	2
	Males.....	244	7	33	10	2	2	1
	Females.....	200	4	29	5			1
	Unknown.....							
Alpena.....	Total	275	9	93	21	2	3	4
	Males.....	144	6	56	11	2	2	2
	Females.....	131	3	37	10		1	2
	Unknown.....							
Antrim.....	Total	273	6	80	21	11	4	2
	Males.....	132	5	36	9	8	1	1
	Females.....	140	1	43	12	3	3	1
	Unknown.....	1		1				
Arenac.....	Total	120	3	39	5	2	1	2
	Males.....	65		22	3	1		1
	Females.....	55	3	17	2	1	1	1
	Unknown.....							
Baraga.....	Total	39	5	11	3	1	1	
	Males.....	17	1	4	1	1		
	Females.....	21	3	7	2		1	
	Unknown.....	1	1					
Barry.....	Total	277	7	37	8	2	3	2
	Males.....	152	2	20	5	1	2	2
	Females.....	124	4	17	3	1	1	
	Unknown.....	1	1					
Bay.....	Total	873	49	230	49	28	10	11
	Males.....	465	24	131	29	16	4	7
	Females.....	406	24	98	20	12	6	4
	Unknown.....	2	1	1				
Benzie.....	Total	121	2	34	10	1	1	1
	Males.....	64	1	18	6		1	1
	Females.....	56	1	15	4	1		
	Unknown.....	1		1				
Berrien.....	Total	606	16	86	13	14	5	2
	Males.....	327	8	44	7	10	3	1
	Females.....	276	5	42	6	4	2	1
	Unknown.....	3	3					
Branch.....	Total	403	11	52	10	6	3	2
	Males.....	205	9	30	5	4	1	2
	Females.....	198	2	22	5	2	2	
	Unknown.....							
Calhoun.....	Total	663	15	70	13	11	4	1
	Males.....	332	8	43	6	7	4	1
	Females.....	331	7	27	7	4		
	Unknown.....							
Cass.....	Total	289	5	35	10	4	3	3
	Males.....	150	2	25	5	2	1	2
	Females.....	138	3	9	5	2	2	1
	Unknown.....	1		1				
Charlevoix.....	Total	198	5	48	12	4	2	1
	Males.....	113	1	25	5	2	1	1
	Females.....	84	3	23	7	2	1	
	Unknown.....	1	1					

* Stillbirths included.

† Stillbirths not included.

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and sex, during the year 1900. (Stillbirths included.)

Ages in five-year periods.

Under 5 years.†	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 and over.	Unk.
9,443	944	654	1,026	1,306	1,318	1,144	1,130	1,123	1,124	1,250	1,419	1,604	1,947	2,167	2,063	2,703	88
5,189	408	326	517	631	586	516	533	589	587	670	793	868	1,047	1,211	1,142	1,439	69
4,246	446	328	509	675	732	628	597	534	537	580	626	736	900	956	921	1,264	17
8																	2
12	....	1	6	1	2	1	3	3	1	2	3	1	....	1	4	2	1
7	....	1	3	....	1	....	2	2	....	2	2	....	....	1	4	2	1
5	....	....	3	1	1	1	1	1	....	....	1	1	....	....	....	....	....
17	....	1	1	1	1	1	1	2	2	....	....	3	....	....	1	....	....
10	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
7	....	....	1	....	1	....	1	....	1	....	....	1	....	....	1	....	....
83	7	8	12	13	19	13	8	14	18	13	19	24	39	42	42	57	2
48	4	3	7	5	11	5	2	6	10	7	12	14	21	22	23	35	2
35	3	5	5	8	8	8	6	8	8	6	7	10	18	20	19	22	....
123	14	7	12	13	10	11	7	4	7	2	13	7	12	9	5	10	....
73	5	4	3	5	5	2	4	3	3	1	8	2	8	5	4	3	....
50	9	3	9	8	5	9	3	1	4	1	5	5	4	4	1	7	....
118	9	5	10	8	9	5	16	8	6	10	9	12	15	12	4	8	3
55	4	2	6	2	4	1	8	7	1	6	4	4	6	5	1	8	3
62	5	3	4	6	5	4	8	1	5	4	5	8	9	7	3	....	....
1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
49	4	6	5	8	5	2	3	2	3	3	4	6	6	5	3	3	....
27	1	2	3	4	2	2	1	1	3	3	4	4	1	3	2	2	....
22	3	4	2	4	3	....	2	1	....	....	....	2	5	2	1	1	....
16	1	....	2	1	1	....	....	2	2	....	1	....	3	3	....	....	2
6	1	....	1	1	....	....	....	2	....	....	....	....	1	2	....	....	2
10	....	....	1	....	1	....	....	....	2	....	1	....	2	1	....	....	....
52	2	3	6	6	7	5	11	10	4	9	11	18	19	30	32	45	....
30	2	2	3	2	3	1	7	5	1	3	7	12	12	19	14	27	....
22	....	1	3	4	4	4	4	5	3	6	4	6	7	11	18	18	....
328	47	29	30	40	25	22	28	38	19	33	21	33	29	30	35	37	....
187	24	12	16	19	10	13	12	18	13	16	13	18	17	19	15	19	....
140	23	17	14	21	15	9	16	20	6	17	8	15	12	11	20	18	....
1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
47	1	4	6	8	4	5	5	4	2	3	6	7	5	1	6	5	....
26	1	3	4	3	1	2	3	1	....	....	5	4	....	....	5	3	....
20	....	1	2	5	3	3	2	3	2	3	1	3	3	1	1	2	....
1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
120	20	14	13	24	27	16	17	31	19	17	26	32	47	53	49	64	1
65	10	10	10	7	14	9	10	19	10	10	18	17	27	30	25	27	1
55	10	4	3	17	13	7	7	12	9	7	8	15	20	23	24	37	....
73	5	5	7	8	17	17	7	11	15	12	18	27	26	44	45	55	....
42	4	2	2	5	6	4	2	8	8	6	6	15	11	23	25	27	....
31	1	3	5	3	11	13	5	3	7	6	12	12	15	21	20	28	....
99	16	8	23	27	22	27	27	38	19	31	31	40	42	65	53	79	1
61	10	4	8	11	6	14	10	14	8	16	21	21	21	32	30	36	1
38	6	4	15	16	16	13	17	24	11	15	10	19	21	33	23	43	....
55	5	6	6	9	7	14	7	6	9	15	16	17	16	30	29	35	2
35	2	3	4	4	2	4	2	1	4	7	7	7	9	23	14	20	....
19	3	3	2	5	5	10	5	5	5	8	9	10	7	7	15	15	2
1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
67	8	4	6	13	8	2	10	5	6	13	10	4	9	8	7	12	1
34	5	2	2	8	4	2	7	2	4	7	4	2	8	6	5	9	1
33	3	4	4	5	4	....	3	3	2	6	6	2	1	2	2	3	....

† Stillbirths not included.

VITAL STATISTICS OF MICHIGAN, 1900.

TABLE II.—Continued.—Deaths in Michigan by ages.

Counties.	Sex.	Total deaths at all ages, 1900.*	Still-born.	Ages in years.				
				Under 1 year.†	1.	2.	3.	4.
Cheboygan.....	Total.....	178	8	61	10	4	2	3
	Males.....	104	3	35	8	3	1	2
	Females.....	73	4	26	2	1	1	1
	Unknown.....	1	1					
Chippewa.....	Total.....	302	7	73	19	7	5	8
	Males.....	184	6	40	9	4	2	4
	Females.....	118	1	33	10	3	3	4
Clare.....	Total.....	101	4	19	4	2		
	Males.....	58	2	12	3	1		
	Females.....	43	2	7	1	1		
Clinton.....	Total.....	321	9	43	13	3	2	2
	Males.....	159	6	20	4	1	2	1
	Females.....	162	3	23	9	2		1
Crawford.....	Total.....	22		7			1	2
	Males.....	17		7			1	1
	Females.....	5						1
Delta.....	Total.....	383	10	127	30	6	7	6
	Males.....	238	4	80	15	4	1	4
	Females.....	145	6	47	15	2	6	2
Dickinson.....	Total.....	248	15	90	18	10	5	4
	Males.....	153	10	54	11	5	3	1
	Females.....	95	5	36	7	5	2	3
Eaton.....	Total.....	309	7	53	4	5	1	3
	Males.....	221	3	33	3	1	1	2
	Females.....	177	3	20	1	4		1
	Unknown.....	1	1					
Emmet.....	Total.....	223	7	59	12	10	3	
	Males.....	131	3	35	9	6		
	Females.....	92	4	24	3	4	3	
Genesee.....	Total.....	551	17	72	15	6	4	1
	Males.....	267	6	39	4	3	2	
	Females.....	284	11	33	11	3	2	1
Gladwin.....	Total.....	70	3	22	4	2		
	Males.....	35	2	11	2	1		
	Females.....	35	1	11	2	1		
Gogebic.....	Total.....	267	23	103	16	6	4	3
	Males.....	149	16	49	7	2	1	2
	Females.....	118	7	54	9	4	3	1
Grand Traverse.....	Total.....	305	8	58	11	2	6	6
	Males.....	166	5	30	4		5	2
	Females.....	137	1	28	7	2	1	4
	Unknown.....	2	2					
Gratiot.....	Total.....	398	6	76	23	6	3	2
	Males.....	184	3	32	16	4	1	
	Females.....	213	3	43	7	2	2	2
	Unknown.....	1		1				
Hillsdale.....	Total.....	408	9	31	4	3	3	1
	Males.....	203	3	23	2	1	1	1
	Females.....	203	4	8	2	2	2	
	Unknown.....	2	2					
Houghton.....	Total.....	954	40	300	73	21	20	14
	Males.....	553	18	189	41	11	11	8
	Females.....	392	14	110	32	10	9	6
	Unknown.....	9	8	1				
Huron.....	Total.....	357	14	94	16	2	7	2
	Males.....	186	8	56	6	1	3	
	Females.....	171	6	38	10	1	4	2

* Stillbirths included.

† Stillbirths not included.

DEATHS.

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counties and sex, during the year 1900. (Stillbirths included.)

Ages in five year periods.

Under 5 years.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 and over.	Unk.
80	6	1	8	5	8	4	3	4	6	5	4	3	10	11	5	7	..
49	6	...	6	2	3	2	1	2	4	4	2	2	7	5	4	2	..
31	...	1	2	3	5	2	2	2	2	1	2	1	3	6	1	5	..
112	12	3	9	10	32	9	18	10	9	5	12	10	14	11	9	7	3
99	9	2	6	9	20	7	12	8	4	5	7	5	7	7	5	3	3
53	3	1	3	1	12	2	6	2	5	5	5	5	7	4	4	4	..
25	6	1	6	2	5	3	3	6	4	4	8	4	6	8	5	1	..
16	2	...	4	1	2	1	2	4	2	4	4	4	5	6	3	...	..
9	4	1	2	1	3	2	1	2	2	4	4	...	1	2	2	1	..
63	4	8	5	8	11	4	9	14	13	7	15	22	19	31	37	42	..
28	4	5	2	5	4	1	5	6	4	3	6	8	10	21	22	19	..
35	...	3	3	3	7	3	4	8	9	4	9	14	9	10	15	23	..
10	...	1	2	1	...	1	...	1	...	...	...	2	...	...	4	...	..
9	...	1	1	1	...	...	...	1	...	...	...	2	...	...	4	...	..
1	...	1	1	...	...	1	...	...	...	...	...	2	...	...	...	...	..
176	13	13	14	13	18	20	20	8	13	11	10	7	14	4	7	6	6
104	6	6	8	9	13	13	16	5	9	8	8	7	8	1	4	4	4
72	7	7	6	4	5	7	4	3	4	2	2	...	6	3	3	2	2
127	11	3	6	12	9	9	5	11	10	8	4	3	3	5	2	5	..
74	6	3	4	9	4	4	5	9	8	6	2	2	2	3	1	1	..
53	5	...	2	3	5	5	...	2	2	2	2	1	1	2	1	4	..
95	4	5	13	17	13	13	9	12	20	18	13	22	31	37	36	61	2
40	3	3	4	10	5	6	4	8	13	8	7	13	18	24	21	29	2
26	1	2	9	7	8	7	5	4	7	10	6	9	13	13	15	32	..
84	3	6	5	12	5	8	3	13	5	2	13	17	10	6	9	14	1
59	2	4	4	9	2	4	2	8	4	1	7	10	5	3	5	8	..
34	1	2	1	3	3	4	1	5	1	1	6	7	5	3	4	6	1
98	6	11	10	16	16	16	9	20	14	24	27	24	49	53	58	82	1
48	3	6	3	10	8	8	3	11	9	5	12	16	21	31	27	39	1
50	3	5	7	6	8	8	6	9	5	19	15	8	28	22	31	43	..
28	3	2	3	6	2	2	2	4	1	1	3	4	...	4	...	2	..
14	...	2	...	3	...	...	...	2	2	1	3	4	...	3	...	1	..
14	3	...	3	3	2	2	2	2	1	...	...	...	...	1	...	1	..
132	11	4	5	16	14	15	10	5	10	4	3	1	3	3	7	...	1
61	4	2	3	14	11	11	6	5	7	2	1	1	3	...	2	...	..
71	7	2	2	2	3	4	4	...	3	2	2	...	...	3	5	...	1
83	10	5	8	13	18	6	15	11	14	21	19	9	13	18	18	15	1
41	5	2	4	8	8	5	7	8	9	14	10	3	11	7	11	7	1
42	5	3	4	5	10	1	8	3	5	7	9	6	2	11	7	8	..
110	10	5	12	19	15	24	11	8	15	16	21	23	22	29	22	30	..
53	4	2	4	3	5	8	4	2	8	6	11	13	9	17	15	17	..
56	6	3	8	16	10	16	7	6	7	10	10	10	13	12	7	13	..
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..
42	8	4	8	7	11	19	17	18	19	18	22	25	37	38	40	75	..
28	4	2	3	3	4	3	5	5	5	8	8	14	22	29	18	39	..
14	4	2	5	4	7	7	12	13	14	10	14	11	15	9	22	36	..
428	51	18	26	52	47	28	40	34	24	16	31	18	33	25	19	18	6
260	25	10	16	26	21	18	24	22	14	8	21	9	21	18	8	8	6
167	26	8	10	26	26	10	16	12	10	8	10	9	12	7	11	10	..
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..
121	7	12	16	22	13	11	10	7	8	5	9	6	19	19	27	31	..
66	3	5	7	10	8	5	2	1	2	3	5	3	12	13	19	14	..
55	4	7	9	12	5	6	8	6	6	2	4	3	7	6	8	17	..

† Stillbirths not included.

TABLE II.—Continued.—Deaths in Michigan by ages.

Counties.	Sex.	Total deaths at all ages, 1900.*	Still-born.	Ages in years.				
				Under 1 year.†	1.	2.	3.	4.
Ingham	Total	578	13	79	19	11	4	3
	Males	273	8	43	11	4	1	2
	Females	305	5	36	8	7	3	1
Ionia	Total	502	14	77	8	5	1	2
	Males	249	4	46	7	3	1	2
	Females	252	9	31	1	2		
	Unknown	1	1					
Iosco	Total	121	5	38	6	3	2	
	Males	66	3	21	5	1	1	
	Females	55	2	17	1	2	1	
Iron	Total	76		22	6	3	3	
	Males	44		13	2	2	1	
	Females	32		9	4	1	2	
Isabella	Total	302	7	60	17	6	4	1
	Males	176	4	40	9	3	2	1
	Females	126	3	20	8	3	2	
Jackson	Total	597	19	89	10	5	2	1
	Males	323	8	41	7	4	1	
	Females	272	9	28	3	1	1	1
	Unknown	2	2					
Kalamazoo	Total	737	15	83	22	11	4	3
	Males	386	7	51	13	6	2	1
	Females	351	8	32	9	5	2	2
Kalkaska	Total	105	6	27	10	1		
	Males	63	1	19	7	1		
	Females	41	4	8	3			
	Unknown	1	1					
Kent	Total	1,893	100	308	70	28	29	16
	Males	983	44	168	32	17	14	9
	Females	909	55	140	38	11	15	7
	Unknown	1	1					
Keweenaw	Total	45	2	20	2	1	3	1
	Males	22	1	10	1		1	
	Females	23	1	10	1	1	2	1
Lake	Total	60	3	8		1		
	Males	36	1	6		1		
	Females	24	2	2				
Lapeer	Total	356	5	50	13	4	5	1
	Males	198	2	36	5	4	3	1
	Females	157	2	23	8		2	
	Unknown	1	1					
Leelanau	Total	155	3	40	8	2	3	1
	Males	74	2	19	3	1	1	
	Females	81	1	21	5	1	2	1
Lenawee	Total	687	15	74	15	11	7	3
	Males	362	8	43	11	4	5	3
	Females	325	7	31	4	7	2	
Livingston	Total	252	2	23	7	1	3	1
	Males	127	1	13	2	1	3	1
	Females	125	1	10	5			
Luce	Total	29	1	8	3			
	Males	14	1	4	1			
	Females	15		4	2			
Mackinac	Total	77		20	3	2	2	2
	Males	43		12	2	1		1
	Females	34		8	1	1	2	1

* Stillbirths included.

† Stillbirths not included.

DEATHS.

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counties and sex, during the year 1900. (Stillbirths included.)

Ages in five-year periods.

Under 5 years.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 and over.	Unk.
115	20	12	22	18	19	27	12	21	19	18	27	37	37	55	36	67	3
59	10	6	13	6	7	11	5	11	8	11	12	16	14	28	16	30	2
56	10	6	9	12	12	16	7	10	11	7	15	21	23	27	20	37	1
94	12	3	13	25	27	16	11	14	18	21	24	26	44	44	36	60	..
60	4	2	6	9	9	7	4	6	6	8	14	14	23	25	21	27	..
34	8	1	7	16	18	9	7	8	12	13	10	12	21	19	15	33	..
49	4	3	5	6	5	1	6	5	3	3	3	4	2	7	3	7	..
28	1	2	3	4	1	1	3	3	1	1	1	3	1	4	2	4	..
21	3	1	2	2	4	..	3	2	2	2	2	1	1	3	1	3	..
34	5	4	..	1	2	4	..	3	4	1	4	1	2	2	1	2	6
18	3	1	..	1	1	4	..	2	1	..	4	..	2	1	..	1	5
16	2	3	..	..	1	..	..	1	3	1	..	1	..	1	1	1	1
88	11	8	15	13	9	11	7	7	10	13	16	18	20	14	14	20	1
35	8	4	10	7	2	3	5	2	5	10	9	8	12	8	10	14	..
33	3	4	5	6	7	8	2	5	5	3	7	10	8	6	4	6	1
87	5	8	26	22	23	23	17	19	19	30	44	34	51	43	59	67	1
53	4	5	16	8	8	9	9	10	10	18	31	22	24	23	27	37	1
34	1	3	10	14	15	14	8	9	9	12	13	12	27	20	32	30	..
123	18	6	23	26	20	28	33	29	29	36	36	51	48	75	54	85	2
73	11	4	11	12	6	12	18	16	13	18	24	26	23	42	29	39	2
50	7	2	12	14	14	16	15	13	16	18	12	25	25	33	25	46	..
38	3	2	6	4	4	..	5	..	4	6	2	5	1	8	6	5	..
27	1	1	4	2	2	..	4	..	2	3	..	3	1	4	4	4	..
11	2	1	2	2	2	..	1	..	2	3	2	2	..	4	2	1	..
451	48	32	51	74	64	67	69	75	74	72	99	101	124	120	123	147	2
240	26	15	27	35	29	29	22	39	39	43	54	48	77	72	65	78	1
211	22	17	24	39	35	38	47	36	35	29	45	53	47	48	58	69	1
27	1	2	..	1	1	2	1	1	..	1	..	..	1	1	2	..	..
12	..	1	2	1	1	1	1	1	..	1	..	..	1	1	..	..	..
15	1	1	..	..	..	1	1	1	..	..	..	..	..	2	..	..	..
9	2	..	5	2	3	2	2	5	1	4	3	2	6	2	2	4	..
7	1	..	2	3	2	2	1	2	1	2	1	2	3	2	1	3	..
2	1	..	3	2	..	1	1	3	..	2	2	..	3	..	1	1	..
82	13	5	15	7	11	11	8	6	16	21	15	21	23	28	38	31	..
49	6	1	5	3	5	4	5	4	7	10	9	14	13	18	22	21	..
33	7	4	10	4	6	7	3	2	9	11	6	7	10	10	16	10	..
54	8	7	6	10	5	9	4	6	3	2	4	5	7	6	5	11	..
24	4	4	2	5	2	5	2	2	3	..	1	1	5	2	3	7	..
30	4	3	4	6	3	4	2	4	..	2	3	4	2	4	2	4	..
110	11	14	24	19	14	24	21	21	23	20	34	49	55	74	69	89	1
66	6	4	13	10	8	8	11	7	11	11	18	20	29	41	37	54	..
44	5	10	11	9	6	16	10	14	12	9	16	29	26	33	32	35	1
35	2	4	5	9	8	7	10	7	12	7	11	14	18	24	25	51	1
20	1	2	3	7	4	3	4	2	7	3	4	7	10	9	13	26	1
15	1	2	2	2	4	4	6	5	5	4	7	7	8	15	12	25	..
11	1	1	1	..	4	1	3	..	1	..	1	..	2	1	..	1	..
5	1	..	..	..	2	..	3	..	1	..	..	..	..	..	..	1	..
6	..	1	1	..	2	1	..	..	..	..	1	..	2	1	..	..	..
29	2	4	3	7	5	1	2	5	1	3	1	2	4	2	3	3	..
16	1	1	2	2	2	..	2	3	..	3	1	2	2	1	3	1	..
13	1	2	1	5	3	1	..	2	1	..	..	..	2	1	..	2	..

† Stillbirths not included.

VITAL STATISTICS OF MICHIGAN, 1900.

TABLE II.—Continued.—Deaths in Michigan by ages.

Counties.	Sex.	Total deaths at all ages, 1900.*	Still- born.	Ages in years.				
				Under 1 year.†	1.	2.	3.	4.
Macomb	Total	514	16	78	26	13	2	3
	Males.....	277	8	41	14	8	1	2
	Females.....	235	6	37	12	5	1	1
	Unknown	2	2					
Manistee	Total	383	25	115	21	11	4	4
	Males.....	222	14	66	10	4	2	
	Females.....	160	10	49	11	7	2	4
	Unknown	1	1					
Marquette	Total	673	62	192	37	20	11	10
	Males.....	399	40	123	19	13	6	5
	Females.....	273	21	69	18	7	5	5
	Unknown	1	1					
Mason.....	Total	277	14	70	8	9	3	3
	Males.....	147	12	36	4	2	3	2
	Females.....	129	2	34	4	7		1
	Unknown	1						
Mecosta.....	Total	280	12	38	14	8	3	1
	Males.....	167	9	24	8	5	3	1
	Females.....	113	3	14	6	3		
	Unknown							
Menominee	Total	327	29	107	20	5	7	1
	Males.....	177	19	60	14	3	2	1
	Females.....	148	8	47	6	2	5	
	Unknown	2	2					
Midland.....	Total	202	10	41	18	3	2	3
	Males.....	121	6	26	12	3	1	1
	Females.....	80	3	15	6		1	2
	Unknown	1	1					
Missaukee	Total	97		26	10	1	4	
	Males.....	51		13	4	1	2	
	Females.....	46		13	6		2	
	Unknown							
Monroe	Total	455	9	74	22	10	5	2
	Males.....	243	3	48	14	5	2	
	Females.....	210	4	26	8	5	3	2
	Unknown	2	2					
Montcalm.....	Total	464	16	90	17	5	6	
	Males.....	226	9	45	6	1	3	
	Females.....	235	5	44	11	4	3	
	Unknown	3	2	1				
Montmorency	Total	21		5		1	2	1
	Males.....	8		1				1
	Females.....	13		4		1	2	
	Unknown							
Muskegon.....	Total	485	19	109	29	8	4	4
	Males.....	257	9	62	16	2	2	2
	Females.....	237	9	47	13	6	2	2
	Unknown	1	1					
Newaygo.....	Total	217	2	33	12	2		2
	Males.....	135	1	19	6	1		1
	Females.....	82	1	14	6	1		1
	Unknown							
Oakland.....	Total	635	5	66	7	3	2	5
	Males.....	347	3	39	3	1	1	2
	Females.....	288	2	27	4	2	1	3
	Unknown							
Oceana.....	Total	221	8	48	7	4	2	
	Males.....	114	1	23	3	1	2	
	Females.....	107	7	25	4	3		
	Unknown							
Ogemaw.....	Total	84	2	28		1	1	2
	Males.....	47	1	14		1	1	1
	Females.....	36		14				1
	Unknown	1	1					

* Births included.

† Stillbirths not included.

DEATHS.

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counties and sex, during the year 1900. (Stillbirths included.)

Ages in five-year periods.

Under 5 years. [†]	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 and over.	DEATHS
122	12	10	14	16	29	16	15	11	20	21	21	33	37	34	33	53	1
86	6	2	6	7	15	10	8	5	15	10	13	13	19	23	18	32	1
56	6	8	8	9	14	6	7	6	5	11	8	20	18	11	15	21	..
155	11	9	13	17	12	9	13	8	11	17	11	12	15	12	14	18	1
82	6	5	11	9	8	3	7	7	6	11	7	6	11	7	10	6	1
73	5	4	2	8	4	6	6	1	5	6	4	6	4	5	4	7	..
270	34	8	18	41	33	28	30	16	16	11	19	19	18	16	14	17	3
166	17	3	14	25	16	16	21	13	11	6	8	12	9	8	6	6	2
104	17	5	4	16	17	12	9	3	5	5	11	7	9	8	8	11	1
93	9	8	9	12	5	15	14	10	6	10	11	4	14	13	11	17	2
47	5	1	2	6	2	8	6	5	6	6	8	1	11	7	5	8	1
46	4	7	7	6	3	7	8	5	.....	4	3	3	3	6	6	9	1
64	10	6	10	13	17	16	8	13	10	11	9	12	19	15	17	18	..
41	8	3	5	9	12	5	5	8	5	6	3	8	12	7	8	13	..
23	2	3	5	4	5	11	3	5	5	5	6	4	7	8	9	5	..
140	11	7	12	12	11	14	9	11	6	11	11	7	6	9	7	12	2
80	5	.....	4	7	7	6	5	6	2	8	5	5	4	6	4	4	2
60	6	7	8	7	4	8	4	5	4	3	6	2	2	3	3	8	..
67	10	3	7	3	12	3	5	5	5	11	9	8	13	10	10	11	..
43	4	2	3	3	6	.....	2	3	4	6	8	4	7	6	10	4	..
24	6	1	4	.....	6	3	3	2	1	5	1	4	6	4	.....	7	..
41	6	3	4	4	5	5	.....	6	3	1	.....	6	.....	2	4	7	..
20	1	2	2	2	3	2	.....	5	2	1	.....	3	.....	1	3	5	..
21	5	2	2	2	2	3	1	1	1	.....	.....	3	.....	1	1	2	..
113	17	8	8	15	19	11	12	14	15	12	21	28	31	30	36	55	1
69	9	5	5	5	11	4	5	7	9	2	9	17	16	14	24	28	1
44	8	3	3	10	8	7	7	7	6	10	12	11	15	16	12	27	..
118	8	8	14	18	17	8	11	20	16	20	29	28	27	34	37	34	1
55	4	4	5	2	5	1	4	9	3	11	19	18	15	18	27	16	1
62	4	4	9	16	12	7	7	11	13	9	10	10	12	16	10	18	..
1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	..
9	1	.....	1	1	1	.....	2	1	.....	1	2	.....	.....	1	.....	1	..
2	1	.....	.....	1	.....	1	1	.....	.....	.....	2	.....	.....	1	.....	.....	..
7	.....	.....	1	.....	.....	1	1	1	.....	1	.....	.....	.....	.....	.....	1	..
154	15	13	22	28	18	16	17	14	17	15	19	30	26	24	22	26	..
84	4	9	11	15	10	13	4	8	8	6	10	13	14	15	10	14	..
70	11	4	11	13	8	3	13	6	9	9	9	17	12	9	12	12	..
49	5	9	8	11	7	5	5	9	12	14	9	9	16	16	18	12	1
27	3	6	5	8	3	3	.....	7	6	9	6	8	11	12	13	6	1
22	2	3	3	3	4	2	5	2	6	5	3	1	5	4	5	6	..
83	11	10	15	24	20	28	25	17	35	23	29	37	55	56	64	96	2
46	5	7	8	13	8	13	14	11	15	16	12	22	30	27	40	55	2
37	6	3	7	11	12	15	11	6	20	7	17	15	25	29	24	41	..
61	1	2	8	13	6	8	5	5	6	9	9	7	17	17	22	16	1
29	1	1	3	6	1	3	2	2	3	4	8	3	11	8	14	13	1
32	.....	1	5	7	5	5	3	3	3	5	1	4	6	9	8	3	..
32	1	5	3	2	2	4	3	1	4	2	4	.....	3	5	5	5	1
17	1	3	2	.....	1	3	1	.....	3	.....	2	.....	3	4	4	1	1
15	.....	2	1	2	1	1	2	1	1	2	2	.....	1	1	1	4	..

† Stillbirths not included.

TABLE II.—Continued.—Deaths in Michigan by ages.

Counties.	Sex.	Total deaths at all ages, 1900.*	Still-born.	Ages in years.				
				Under 1 year.†	1.	2.	3.	4.
Ontonagon.....	Total.....	38	1	17	2	2	1	.....
	Males.....	19	.....	7	1	.....	1	.....
	Females.....	19	1	10	1	2	.....	.....
Osceola.....	Total.....	255	6	47	11	7	3	3
	Males.....	137	4	26	5	3	2	2
	Females.....	118	2	21	6	5	1	1
Oscoda.....	Total.....	6	.....	.....	.....	.....	.....	.....
	Males.....	2	.....	.....	.....	.....	.....	.....
	Females.....	3	.....	.....	.....	.....	.....	.....
	Unknown.....	1	.....	.....	.....	.....	.....	.....
Otsego.....	Total.....	75	2	22	7	1	2	1
	Males.....	39	2	9	2	1	1	1
	Females.....	36	.....	13	5	.....	1	.....
Ottawa.....	Total.....	527	29	76	21	8	2	5
	Males.....	277	18	35	12	2	1	3
	Females.....	249	10	41	9	6	1	2
	Unknown.....	1	1	.....	.....	.....	.....	.....
Presque Isle.....	Total.....	52	1	20	2	3	.....	.....
	Males.....	25	1	9	.....	1	.....	.....
	Females.....	27	.....	11	2	2	.....	.....
Roscommon.....	Total.....	14	.....	2	1	.....	.....	.....
	Males.....	8	.....	.....	1	.....	.....	.....
	Females.....	6	.....	2	.....	.....	.....	.....
Saginaw.....	Total.....	1,095	57	208	32	12	9	12
	Males.....	595	34	116	19	8	6	8
	Females.....	500	23	92	13	4	3	4
St. Clair.....	Total.....	765	41	143	14	7	5	5
	Males.....	416	19	83	7	4	2	3
	Females.....	348	21	60	7	3	3	2
	Unknown.....	1	1	.....	.....	.....	.....	.....
St. Joseph.....	Total.....	327	4	39	4	4	.....	3
	Males.....	177	3	18	3	2	.....	1
	Females.....	150	1	21	1	2	.....	2
Sanilac.....	Total.....	413	4	73	9	10	6	4
	Males.....	210	2	48	2	6	2	2
	Females.....	203	2	25	7	4	4	2
Schoolcraft.....	Total.....	179	5	31	4	5	1	3
	Males.....	54	3	14	2	1	.....	2
	Females.....	55	2	17	2	4	1	1
Shiawassee.....	Total.....	445	6	89	15	9	5	5
	Males.....	239	4	48	7	6	2	2
	Females.....	206	2	32	8	3	3	3
Tuscola.....	Total.....	491	18	93	18	14	7	8
	Males.....	244	10	51	7	6	3	5
	Females.....	246	7	42	11	8	4	3
	Unknown.....	1	1	.....	.....	.....	.....	.....
Van Buren.....	Total.....	447	3	52	9	4	1	4
	Males.....	227	1	21	5	2	1	2
	Females.....	219	1	31	4	2	.....	2
	Unknown.....	1	1	.....	.....	.....	.....	.....
Washtenaw.....	Total.....	413	5	73	8	6	8	2
	Males.....	312	4	38	2	2	2	2
	Females.....	300		35	6	4	6	
	Unknown.....	1	1					

* Stillbirths included.

† Stillbirths not included.

DEATHS.

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counties and sex, during the year 1900. (Stillbirths included.)

Ages in five-year periods.

Under 5 years.†	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 and over.	Total
22 9 13	1 1 1	..... ..... .....	..... ..... .....	2 1	..... ..... .....	2 1 1	1 1 1	2 1 1	1 1	1 1 1	1 1 1	..... ..... .....	1 1 1	..... ..... .....	2 1 1	..... ..... .....	1 1 1
71 37 34	5 4 1	7 3 4	5 2 3	8 4 4	15 9 6	6 1 5	9 4 5	9 3 6	7 4 3	12 7 5	18 7 11	12 9 3	16 9 7	15 10 5	13 9 4	21 11 10	.. .. ..
.....	.....	.....	.....	.....	1 .....	.....	.....	.....	.....	.....	.....	.....	2	1 1	.....	.....	2 1
.....	.....	.....	.....	.....	1 .....	.....	.....	.....	.....	.....	.....	.....	2 .....	.....	.....	.....	1
33 14 19	3 2 1	4 2 2	5 1 4	2 1 1	..... ..... .....	2 2	2 1 1	2 1 1	2 2	4 3 1	4 3 1	5 4 1	..... ..... .....	1 1	2 2	2 2 .....	.. .. ..
112 53 59	9 6 3	19 6 13	23 14 9	17 13 4	25 11 14	14 10 4	23 9 14	9 3 6	15 7 8	22 15 7	19 9 10	25 15 10	30 16 14	39 20 19	39 24 15	57 27 30	1 1 ..
.....																	
25 10 15	1 1	1 1	..... ..... .....	3 1 2	3 2 1	..... ..... .....	1 1	1 1	1 1	..... ..... .....	1	1 1	1 1	..... ..... .....	5 4 1	7 4 3	.. .. ..
3 1 2	..... ..... .....	..... ..... .....	..... ..... .....	1 1	..... ..... .....	1 1	..... ..... .....	1 1	..... ..... .....	..... ..... .....	..... ..... .....	2 2 1	2 1 1	3 3	1 1 .....	..... ..... .....	.. .. ..
273 157 116	37 19 18	27 15 12	27 13 14	45 19 26	48 21 27	41 15 26	36 18 21	43 22 18	32 14 18	52 33 19	42 31 11	34 20 14	67 32 35	78 43 35	55 36 19	100 53 47	1 .. 1
174 99 75	28 18 10	18 10 8	21 10 11	30 14 16	25 10 15	25 10 15	21 10 11	27 10 7	27 18 9	25 14 11	49 23 26	40 23 17	35 14 21	67 38 29	40 23 17	72 43 29	.. .. ..
50 24 26	2 1 1	1 1	10 6 4	11 3 8	11 7 4	11 3 8	8 4 4	7 1 6	8 5 3	14 8 6	18 10 6	21 13 8	34 21 13	35 21 14	34 20 14	48 27 21	.. .. ..
102 60 42	11 5 6	8 5 3	19 7 12	15 5 10	19 10 9	18 3 15	13 5 8	10 3 7	15 7 8	11 4 6	11 5 9	18 9 14	35 21 14	30 12 18	36 18 18	38 26 12	.. .. ..
44 19 25	3 2 1	8 2 6	4 3 1	4 3 1	5 3 2	6 4 2	3 1 2	4 4	6 4 2	5 3 2	4 4	3 3	1 1	1 1	1 1	..... ..... .....	2 2
114 65 49	14 6 8	7 5 2	11 4 7	16 7 9	16 7 9	15 6 8	14 6 5	13 8 5	16 10 6	9 3 6	21 11 10	24 10 14	35 20 15	40 19 16	42 19 23	31 20 11	1
140 70 70	18 10 8	8 4 4	19 7 12	15 5 10	15 7 8	14 5 9	13 7 6	11 5 2	7 5 6	23 9 14	22 11 11	23 13 10	34 18 16	36 18 16	34 18 16	40 21 19	1 1 ..
70 31 39	8 3 5	3 2 1	21 8 13	5 2 3	16 6 10	19 9 10	12 6 6	12 6 5	14 7 7	20 7 13	17 9 8	31 15 16	47 23 24	27 16 16	49 32 17	72 48 24	1 .. 1
97 46 51	6 3 3	9 7 2	17 8 9	27 12 15	31 16 10	18 8 10	21 9 12	20 11 9	23 8 15	33 18 15	37 19 18	43 27 16	39 20 19	55 31 24	54 25 29	78 40 38	.. .. ..

† Stillbirths not included.

TABLE II.—Concluded.—Deaths in Michigan by ages.

Counties.	Sex.	Total deaths at all ages. 1900.*	Still-born.	Ages in years.				
				Under 1 year.†	1.	2.	3.	4.
Wayne	Total	5,775	361	1,408	252	194	61	41
	Males	2,975	224	803	131	54	31	20
	Females	2,796	134	689	121	50	30	21
	Unknown	4	3	1				
Wexford	Total	269	10	74	25	8	3	3
	Males	150	6	41	15	3	2	2
	Females	119	4	33	10	3	1	1

* Stillbirths included.

† Stillbirths not included.

DEATHS.

19

counties and sex, during the year 1900. (Stillbirths included.)

Ages in five-year periods.

Under 5 years.†	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 and over.	Unk.
1,951	153	98	145	210	239	198	229	197	207	231	207	270	265	297	238	270	9
1,039	84	48	72	97	86	89	100	98	112	122	117	147	125	150	121	138	6
911	69	50	73	113	153	109	129	99	95	109	90	123	140	147	117	132	3
1																	
111	13	9	10	7	11	9	5	6	7	13	9	11	10	7	8	12	1
63	7	5	6	4	5	4	1	3	4	9	4	6	6	5	3	8	1
48	6	4	4	3	6	5	4	3	3	4	5	5	4	2	5	4	..

† Stillbirths not included.

TABLE III.—Causes of death in Michigan, by months.

CAUSES OF DEATH.

ages and sex, during the year 1900. (Stillbirths included.)

Ages of decedents, 1900.

Ages in years under five.					Ages by five-year periods.																		Classification No.
0.	1.	2.	3.	4.	0 to 4.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 +	Unk.	
8,191	1366	587	350	265	10,768	944	654	1026	1306	1318	1144	1130	1123	1124	1250	1419	1604	1947	2167	2063	2703	88	
4,573	721	310	180	142	5,926	498	326	517	631	586	516	533	589	587	670	793	868	1047	1211	1142	1439	69	
3,562	645	277	179	123	4,786	446	328	509	675	732	628	597	534	537	580	626	736	900	956	921	1264	17	
56					56																	2	
1,325					1,325																		
737					737																		
540					540																		
48					48																		
5	13	6	6	7	37	48	83	114	156	98	81	51	47	30	25	17	11	9	6	6	4	1	
2	7	2	5	3	19	19	35	63	98	73	48	33	36	20	16	11	5	4	4	2	1	1	
3	6	4	1	4	18	29	48	51	58	25	33	18	12	10	9	6	6	5	2	4	3	1	
			1	1		2	1	2	7	6	4	3	3	4	6	1	1	2	1	1	1	1	
			1			1	1	2	4	3	1	1	5	1		1	1	1	1	1	1	1	
								1															
								1															
2	1		1		4		1		1			2	1			1	1	1	1				
1	1				2		1		1			2	1			1		1	1				
1			1		2											1	1	1					
2					2		1	1	3	1	1					1							
1					1			1	1	1	1					1							
87	69	36	24	13	220	35	16	16	8	13	9	4	5	3	1	2		1					
48	38	16	9	6	117	21	8	9	4	6	2	1	2	1		1							
39	31	20	15	7	112	14	8	7	4	8	7	3	3	2	1	1		1					
21	27	34	39	30	151	87	18	4	2	1	3	1	2										
14	15	15	19	18	81	42	8	2			3												
7	12	19	20	12	70	45	10	2	2	1		1	2										
135	37	16	5	6	199	9																	
67	14	8	1		90	5																	
68	23	8	4	6	109	4																	
23	29	43	40	36	171	132	52	20	3	4	1			2	2	1	1						
13	18	21	19	17	88	60	18	8	1	1				1									
10	11	22	21	19	83	72	34	12	2	3	1			1	2	1	1						
12	17	15	8	9	61	21	4																
7	9	5	5	7	33	11	1																
5	8	10	3	2	28	10	3																
14	10	8	7	3	42	11			1														
4	5	4	4	2	25	7			1														
	5	4	3	1	17	4																	
36	7	4	4	1	52	6	6	5	14	9	18	13	14	16	14	28	45	57	80	93	2		
13	5	1	4		23	3	3	2	8	3	7	4	8	8	5	11	20	29	40	41	2		
23	2	3		1	29	3	3	3	6	6	11	9	6	8	9	13	17	25	28	40	62		

ITAL STATISTICS OF MICHIGAN, 1900.

TABLE III.—Causes of death in Michigan, by months.

Causes of death, 1900.		Sex.	Total deaths, 1900.	Months of death, 1900.											
				Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
ALL CAUSES.....		Total..	33,778	2,684	2,698	3,135	3,121	2,823	2,326	2,578	2,995	3,369	2,882	2,820	2,680
		Males..	17,948	1,418	1,424	1,660	1,629	1,504	1,266	1,411	1,615	1,775	1,408	1,391	1,309
		Fem..	15,772	1,269	1,274	1,475	1,492	1,319	1,060	1,167	1,380	1,594	1,474	1,429	1,371
		Unk..	58	7	6	4	6	4	3	7	4	5	5	1	1
Stillbirths. (included in above.)		Total..	1				13	118	96	121	111	123	113	103	97
		Males..					57	69	53	69	64	72	59	56	57
		Fem..					52	48	40	46	44	46	49	47	33
		Unk..	48				4	1	3	6	3	5	5	1	7
1	Typhoid fever.....	Total..					18	27	29	28	31	131	164	138	115
		Males..					8	11	18	18	37	85	88	82	76
		Fem..					10	16	11	10	24	46	76	56	39
1a	Typho-malarial fever.....	Total..	45	3			3	3	1	5	4	7	4	7	6
		Males..	24	1	1		2	2	1	3	4	4	4	1	4
		Fem..	21	2			1	1		2		3	4	6	2
2	Typhus fever.....	Total..	1									1			
		Males..													
		Fem..	1									1			
3	Scurvy.....	Total..	13	1	1	2	1		2	3	1	1	1		
		Males..	9	1		2	1			3		1	1		
		Fem..	4		1				2		1				
4	Smallpox.....	Total..	9			1	2	1	1				1	1	2
		Males..	6				2	1					1	1	
		Fem..	3						1						2
5	Measles.....	Total..	342	41	53	71	62	51	24	17	6	2	4	8	3
		Males..	171	24	28	38	29	22	17	8	2	1	1	1	
		Fem..	171	17	25	33	33	29	7	9	4	1	3	7	3
6	Scarlet fever.....	Total..	272	20	24	26	22	18	20	19	14	19	26	26	38
		Males..	138	13	11	16	11	9	8	11	6	11	11	11	20
		Fem..	133	7	13	9	11	9	12	8	8	8	15	15	18
		Unk..	1			1									
7	Whooping cough..	Total..	208	17	16	27	21	33	24	23	18	13	7	3	6
		Males..	95	10	6	12	11	17	7	9	5	10	5	1	2
		Fem..	113	7	10	15	10	16	17	14	13	3	2	2	4
8a	Diphtheria.....	Total..	389	55	37	20	25	17	20	9	15	38	44	61	48
		Males..	175	29	17	7	11	3	12	4	11	19	22	24	18
		Fem..	212	26	20	13	14	14	8	5	4	19	22	37	30
8b	Membranous croup.....	Total..	86	8	5	6	3	4	1	2	3	5	15	20	16
		Males..	45	6	1	4	2	2	1	1	1	3	8	10	6
		Fem..	41	2	2	2	1	2		1	2	2	7	10	10
8c	Croup.....	Total..	54	8	7	9	4	4	3			1	5	10	3
		Males..	33	3	3	5	3	3	3			1	3	6	3
		Fem..	21	5	4	4	1	1					2	4	
9	Influenza.....	Total..	500	54	64	107	117	62	30	14	6	10	6	11	29
		Males..	230	25	32	51	53	20	12	6	4	4	3	5	15
		Fem..	270	29	32	56	64	42	8	8	2	6	3	6	14
10	Miliary fever.....	Total..													
		Males..													
		Fem..													
11	Asiatic cholera.....	Total..													
		Males..													
		Fem..													

CAUSES OF DEATH.

ages and sex, during the year 1900. (Stillbirths included.)

Ages of decedents, 1900.																								Classification No.
Ages in years under five.					Ages by five-year periods.																			
0.	1.	2.	3.	4.	0 to 4.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 +	Unk.		
8,191	1366	587	359	265	10,768	944	654	1026	1306	1318	1144	1130	1123	1124	1250	1419	1604	1947	2167	2063	2703	88	1	
4,573	721	310	180	142	5,926	498	326	517	631	586	516	533	589	587	670	793	868	1047	1211	1142	1439	69		
3,562	645	277	179	123	4,786	446	328	509	675	732	628	597	534	537	589	626	736	900	956	921	1264	17		
56					56																	2		
1,325					1,325																		1a	
737					737																			
540					540																			
48					48																		2	
5	13	6	6	7	37	48	83	114	156	98	81	51	47	30	25	17	11	9	6	6	4	1		
2	7	2	5	3	19	19	35	63	98	73	48	33	35	20	16	11	5	4	4	2	1			
3	6	4	1	4	18	29	48	51	58	25	33	18	12	10	9	6	6	5	2	4	3	1	3	
		1	1		2	1	2	7	6	4	3	3	4	6		1	1	2	1	1	1			
			1		1			3	4	1	3	2	1	5		1	1							
				1	1	1	2	4	2	3		1	3	1	1		1	1	1	1	1	1	4	
																							5	
																							6	
																							7	
																							8a	
																							8b	
																							8c	
																							9	
																							10	
																							11	

TABLE III.—Continued.—Causes of death in Michigan, by months.

Classification No.	Causes of death, 1900.	Sex.	Total deaths, 1900.	Months of death, 1900.											
				Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
25a	Cancer—mouth..	Total..	55	5	4	5	6	2	4	1	4	14	1	4	5
		Males..	38	5	1	4	3		4	1	3	10		4	3
		Fem..	17		3	1	3	2			1	4	1		2
25b	Cancer—stomach or liver.....	Total..	566	44	38	42	60	43	41	48	49	56	43	54	48
		Males..	309	21	18	25	30	25	19	23	35	32	25	27	30
		Fem..	256	23	20	17	30	18	22	25	14	24	18	27	28
25c	Cancer—intes- tines or rectum	Total..	137	12	8	11	13	6	10	12	10	12	15	10	18
		Males..	63	9	4	5	9	2	5	5	5	3	3	4	9
		Fem..	74	3	4	6	4	4	5	7	5	9	12	6	9
25d	Cancer—uterus..	Total..	201	18	15	18	13	15	24	15	22	16	12	19	14
		Males..													
		Fem..	201	18	15	18	13	15	24	15	22	16	12	19	14
25e	Cancer—breast..	Total..	134	14	10	13	9	12	9	12	13	11	8	13	10
		Males..	3					2				1			
		Fem..	131	14	10	13	9	10	9	12	12	11	8	13	10
25f	Cancer—skin.....	Total..	82	6	7	4	7	7	8	3	7	9	13	5	6
		Males..	56	4	3	4	4	7	6	1	5	5	8	4	5
		Fem..	26	2	4		3		2	2	2	4	5	1	1
25g	Cancer—other organs.....	Total..	285	34	32	21	24	25	19	25	19	19	21	20	26
		Males..	129	15	18	9	10	12	11	13	12	10	7	9	13
		Fem..	146	19	14	12	14	13	8	12	7	9	14	11	13
26-27	Rheumatism.....	Total..	243	24	19	34	20	24	13	19	23	14	10	17	17
		Males..	124	13	9	20	12	8	3	10	14	8	10	6	10
		Fem..	119	11	10	14	8	15	10	9	9	6	9	11	7
28	Diabetes	Total..	224	20	22	23	11	14	22	17	19	18	14	16	19
		Males..	126	19	10	11	8	9	12	9	9	12	9	8	10
		Fem..	98	10	12	12	3	5	10	8	10	6	5	8	9
29	Exophthalmic goitre	Total..	17	1	2	1	3	2	1	1	1	3		2	
		Males..	1									1			
		Fem..	16	1	2	1	3	2	1	1	1	2		2	
30	Addison's disease	Total..	15	1	2		1	1	3		2		3		2
		Males..	5	1									1		1
		Fem..	10				1	1	3		2		2		1
31	Leukemia.....	Total..	35	4	6		5	3	2	1	4	2	3	4	1
		Males..	11	1	3			1			2	1		2	1
		Fem..	24	3	3		5	2	2	1	2	1	3	2	
32	Anemia, chlorosis	Total..	180	10	8	17	15	23	12	26	24	12	13	16	4
		Males..	68	1	4	5	10	8	3	7	9	2	6	13	
		Fem..	111	9	4	12	5	15	9	19	15	9	7	3	4
33	Other general diseases.....	Total..	7		1	1		3	1					1	
		Males..	1												
		Fem..	6		1	1		3	1					1	
34	Alcoholism, acute and chronic....	Total..	71	5	4	11	9	6	7	8	3	4	5	3	8
		Males..	64	4	3	11	2	6	6	7	3	4	4	3	4
		Fem..	7	1	1				1	1			1		2
35-37	Chronic poison- ings	Total..	20	3	5	4	1			2		2	1	1	1
		Males..	8		1	3				2		1		1	
		Fem..	12	3	4	1	1					1	1		1
38	Encephalitis.....	Total..	86	8	4	6	10	12	10	6	10	8	9	7	6
		Males..	55	4	2	3	4	7	8	4	6	6	3	4	4
		Fem..	31		2	3	6	5	2	2	4	2	6	3	2

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Ages of decedents, 1900.																Classification No.							
Ages in years under five.					Ages by five-year periods.																		
0.	1.	2.	3.	4.	0 to 4.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 +	Unk.	
1					1					1		1	2	3	2	6	5	9	10	9	6		25a
1					1					1		1	2	3	2	6	5	9	10	9	6		
		1			1		2		1	2	12	13	32	39	55	76	84	91	78	52	27	1	25b
		1			1		1		1	1	6	6	17	23	29	38	42	45	42	30	18	1	
	2				2		1	1	1	5	4	4	10	10	20	19	15	15	12	11	7		25c
	1				1		1	1	1	1	2	2	4	6	7	12	7	8	4	3	4		
					1		1	1	1	4	2	2	6	4	13	7	8	7	8	8	3		25d
									1	5	7	14	28	44	22	21	17	22	12	7	1		
									1	5	7	14	28	44	22	21	17	22	12	7	1		25e
									1	2	2	4	5	17	17	29	17	14	16	6	4		
									1	2	2	4	5	17	17	28	17	14	16	5	3		25f
									1	2	2	4	5	17	17	28	17	14	16	5	3		
	1				1			2		1	1	1	2	5	5	12	7	10	14	5	15	1	25g
	1				1			1		1	1	1	2	3	3	7	4	7	10	5	12		
		3	3		3	7	3	3	5	5	3	6	16	19	22	30	37	24	38	24	19		26-27
		3	3		3	7	3	1	2	2	1	3	4	8	6	12	18	6	23	16	15		
2				2	4	11	18	16	7	5	3	8	7	10	12	18	22	25	30	28	19		28
2				2	4	5	10	5	4	1	3	3	4	6	7	8	8	12	12	18	9		
1		4	5	9	13	12	9	8	9	8	9	10	11	19	12	29	22	20	12	12		29	
1		3	4	5	9	6	7	4	4	5	8	9	10	11	15	17	14	11	5	10			
					1	1	4	4	6	5	5	4	4	2	4	14	7	12	8	9	7		30
								1	1	1	3	1		2	1	2	3		2				
								1	1	1	3	1		1	1	2	3		2				

TABLE III.—Continued.—Causes of death in Michigan, by months.

Classification No.	Causes of death, 1900.	Sex.	Total deaths, 1900.	Months of death, 1900.											
				Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
25a	Cancer—mouth ..	Total ..	55	5	4	5	6	2	4	1	4	14	1	4	5
		Males ..	38	5	1	4	3	.....	4	1	3	10	.....	4	3
		Fem..	17	.....	3	1	3	2	.....	.....	1	4	1	.....	2
25b	Cancer—stomach or liver.....	Total ..	566	44	38	42	60	43	41	48	49	56	43	54	48
		Males ..	309	21	18	25	30	25	19	23	35	32	25	27	20
		Fem..	266	23	20	17	30	18	22	25	14	24	18	27	28
25c	Cancer—intes- tines or rectum	Total ..	137	12	8	11	13	6	10	12	10	12	15	10	18
		Males ..	63	9	4	5	9	2	5	5	5	3	3	4	9
		Fem..	74	3	4	6	4	4	5	7	5	9	12	6	9
25d	Cancer—uterus ..	Total ..	201	18	15	18	13	15	24	15	22	16	12	19	14
		Males ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
		Fem..	201	18	15	18	13	15	24	15	22	16	12	19	14
25e	Cancer—breast...	Total ..	134	14	10	13	9	12	9	12	13	11	8	13	10
		Males ..	3	.....	.....	.....	.....	2	.....	.....	1	.....	.....	.....	.....
		Fem..	131	14	10	13	9	10	9	12	12	11	8	13	10
25f	Cancer—skin.....	Total ..	82	6	7	4	7	7	8	3	7	9	13	5	6
		Males ..	56	4	3	4	4	7	6	1	5	5	8	4	5
		Fem..	26	2	4	.....	3	.....	2	2	2	4	5	1	1
25g	Cancer—other organs.....	Total ..	285	34	32	21	24	25	19	25	19	19	21	20	26
		Males ..	139	15	18	9	10	12	11	13	12	10	7	9	13
		Fem..	146	19	14	12	14	13	8	12	7	9	14	11	13
26-27	Rheumatism.....	Total ..	243	24	19	34	20	24	13	19	23	14	19	17	17
		Males ..	124	13	9	20	12	9	3	10	14	8	10	6	10
		Fem..	119	11	10	14	8	15	10	9	9	6	9	11	7
28	Diabetes	Total ..	224	29	22	23	11	14	22	17	19	18	14	16	19
		Males ..	126	19	10	11	8	9	12	9	9	12	9	8	10
		Fem..	98	10	12	12	3	5	10	8	10	6	5	8	9
29	Exophthalmic goitre	Total ..	17	1	2	1	3	2	1	1	1	3	.....	2	.....
		Males ..	1	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....
		Fem..	16	1	2	1	3	2	1	1	1	2	.....	2	.....
30	Addison's disease	Total ..	15	1	2	.....	1	1	3	.....	2	.....	3	.....	2
		Males ..	5	1	2	.....	.....	.....	.....	.....	.....	.....	1	.....	1
		Fem..	10	.....	.....	.....	1	1	3	.....	2	.....	2	.....	1
31	Leukemia.....	Total ..	35	4	6	.....	5	3	2	1	4	2	3	4	1
		Males ..	11	1	3	.....	.....	1	.....	.....	2	1	.....	2	1
		Fem..	24	3	3	.....	5	2	2	1	2	1	3	2	.....
32	Anemia, chlorosis	Total ..	180	10	8	17	15	23	12	26	24	12	13	16	4
		Males ..	69	1	4	5	10	8	3	7	9	3	6	13	.....
		Fem..	111	9	4	12	5	15	9	19	15	9	7	3	4
33	Other general diseases.....	Total ..	7	.....	1	1	.....	3	1	.....	.....	.....	.....	1	.....
		Males ..	2	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
		Fem..	5	.....	.....	.....	.....	3	1	.....	.....	.....	.....	1	.....
34	Alcoholism, acute and chronic....	Total ..	71	5	4	11	9	6	7	8	3	4	5	3	6
		Males ..	64	4	3	11	9	6	6	7	3	4	4	3	4
		Fem..	7	1	1	.....	.....	.....	1	1	.....	.....	1	.....	2
35-37	Chronic poison- ings.....	Total ..	20	3	5	4	1	.....	.....	2	.....	2	1	1	1
		Males ..	8	.....	1	3	.....	.....	.....	2	.....	1	.....	1	.....
		Fem..	12	3	4	1	1	.....	.....	.....	.....	1	1	.....	1
	Encephalitis.....	Total ..	96	8	4	6	10	12	10	6	10	8	9	7	6
		Males ..	55	4	2	3	4	7	8	4	6	6	3	4	4
		Fem..	41	4	2	3	6	5	2	2	4	2	6	3	2

CAUSES OF DEATH.

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ages and sex, during the year 1900. (Stillbirths included.)

Ages of decedents, 1900.																							Classification No.
Ages in years under five.					Ages by five-year periods.																		
0.	1.	2.	3.	4.	0 to 4.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 +	Unk.	
1					1					1		1	2	3	2	6	5	9	10	9	6		25a
1					1					1		1	2		2	6	2	6	7	5	6		
															3		3	3	3	4			25b
			1		1		2		1	2	12	13	32	39	55	76	84	91	78	52	27	1	
			1		1		1		1	1	6	6	17	23	29	38	42	45	42	30	18	1	25c
					1		1			1	6	7	15	16	26	38	42	46	36	22	9		
		2			2		1	1	1	5	4	4	10	10	20	19	15	15	12	11	7		25d
		1			1		1		1	1	2	2	4	6	7	12	7	8	4	3	4		
		1			1			1		4	2	2	6	4	13	7	8	7	8	8	3		25e
									1	5	7	14	28	44	22	21	17	22	12	7	1		
									1	5	7	14	28	44	22	21	17	22	12	7	1		25f
									1	2	2	4	5	17	17	29	17	14	16	6	4		
									1	2	2	4	5	17	17	28	17	14	16	5	3		25g
																1				1	1		
	1				1			2		1	1	1	2	5	5	12	7	10	14	5	15	1	26-27
	1				1			1		1	1		1	2	3	7	4	7	10	5	12		
								1		1	1			2	2	5	3	3	4		3	1	28
																							29
																							30
																							31
																							32
																							33
																							34
																							35-37
																							38
33	15	4	4	1	57	9	3	4	3	3	2	2	1	1	1	1	2	3	1	1	3		38
19	10	2	3	1	35	6		2		2	2		1	1	1	1	1	1	1	2			
14	5	2	1		22	3	3	2	3	1		2					1	2	1		1		

VITAL STATISTICS OF MICHIGAN, 1900.

TABLE III.—Continued.—Causes of death in Michigan, by months.

Classification No.	Causes of death, 1900.	Sex.	Total deaths, 1900.	Months of death, 1900.											
				Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
39a	Simple meningitis.....	(Total. Males. Fem..)	514 279 235	54 24 30	40 21 19	60 35 25	51 32 19	56 25 31	41 26 15	35 15 20	47 26 21	33 17 16	45 24 21	23 13 10	29 21 8
39b	Epidemic cerebrospinal meningitis.....	(Total. Males. Fem..)	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....
42	Cerebral congestion, hemorrhage.....	(Total. Males. Fem..)	1,259 685 574	112 63 49	95 54 41	115 62 53	118 64 54	104 53 51	101 62 49	101 49 52	98 59 39	109 61 48	102 53 49	99 51 48	105 64 41
43	Cerebral softening.....	(Total. Males. Fem..)	89 52 37	7 3 4	11 8 3	9 5 4	5 2 3	10 4 6	6 4 2	8 5 3	9 8 1	3 2 1	4 3 1	10 3 7	7 5 2
44	Paralysis.....	(Total. Males. Fem..)	788 393 395	75 38 37	60 23 37	70 39 31	69 32 37	71 34 37	57 30 27	62 30 32	57 32 25	58 27 31	65 35 30	68 33 35	76 40 36
45	General paralysis of insane.....	(Total. Males. Fem..)	127 80 47	6 2 4	12 9 3	14 10 4	13 7 6	16 8 8	17 11 6	8 6 2	12 7 4	7 5 2	7 5 2	8 7 1	7 7 5
46	Other forms of insanity.....	(Total. Males. Fem..)	65 34 31	2 2	6 4 2	3 2 1	8 7 4	9 7 2	6 4 3	5 3 3	6 3 3	4 3 4	7 5 5	4 3 1	5 2 3
47	Epilepsy.....	(Total. Males. Fem..)	139 85 54	8 5 3	6 6	13 8 5	9 8 7	18 10 8	7 2 5	12 8 4	10 7 3	13 11 2	14 7 7	17 9 8	12 10 2
48	Convulsions.....	(Total. Males. Fem..)	23 6 17	1 1 1	4 1 3	1 1	2 1 1	2 1 2	2 1 2	2 1 1	3 1 2	3 1 3	1 1 1	1 1	1 1 1
49	Convulsions of infants.....	(Total. Males. Fem.. Unk..)	519 287 231 1	32 18 14	35 27 8	60 32 28	57 30 27	54 34 24	40 22 18	52 28 24	37 18 18	36 13 23	36 13 16	26 20 15	44 28 16
50	Tetanus.....	(Total. Males. Fem..)	19 13 6	3 2 1	1 1	1 1	2 1 1	 1	1 1	3 3	1 1	3 2 1	2 1 2	..... ..... .....	2 1 1
40-41 50-54	Other nervous diseases.....	(Total. Males. Fem..)	418 227 191	30 14 16	33 20 13	43 26 17	45 26 19	42 25 17	28 15 13	30 17 13	38 16 22	34 17 17	37 21 16	25 17 8	33 13 20
55	Pericarditis.....	(Total. Males. Fem..)	99 56 43	10 5 5	12 6 6	8 4 4	7 4 3	11 7 4	7 5	7 5 4	5 4 2	8 3 5	5 1 4	10 6 4	9 4 5
56	Endocarditis.....	(Total. Males. Fem..)	102 51 51	7 4 3	5 2 3	19 9 10	8 3 5	6 3 3	9 8 1	7 4 3	7 3 4	8 1 7	7 6 1	8 1 7	11 7 4
57	Organic heart disease.....	(Total. Males. Fem..)	2,472 1,397 1,075	211 125 86	227 131 96	219 123 96	230 129 101	228 130 98	195 109 86	196 110 86	166 89 77	186 103 83	179 92 87	214 127 87	221 123 98
58	Angina pectoris.....	(Total. Males. Fem..)	163 103 60	13 7 6	22 16 6	20 12 8	10 7 3	18 13 5	4 6 3	11 6 5	16 8 8	8 6 2	10 5 5	15 11 4	16 11 5
59	Diseases of the arteries.....	(Total. Males. Fem..)	98 57 41	6 5 1	7 4 3	11 7 4	10 8 2	9 5 4	5 3 2	7 6 1	7 6 3	12 2 10	13 7 6	9 6 3	2 2

CAUSES OF DEATH.

ages and sex, during the year 1900. (Stillbirths included.)

Ages and decedents, 1900.																								Classification No.	
Ages in years under five.					Ages by five-year periods.																				
0.	1.	2.	3.	4.	0 to 4.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 +	Unk.			
133	71	34	26	23	287	58	29	34	20	18	10	9	14	8	3	6	7	3	4	2	1	1	39a		
78	44	18	12	13	165	30	10	18	9	9	6	5	8	4	3	3	3	1	1	1	1	39b			
55	27	16	14	10	122	28	19	16	11	9	4	4	6	4	3	3	4	3	2	1	1			39c	
54	12	4	4	3	77	10	4	9	11	10	20	31	48	53	77	89	126	156	212	159	166		1		42
38	8	2	1	2	51	6	2	6	6	5	9	17	25	24	39	48	68	82	114	94	88	1	43		
16	4	2	3	1	26	4	2	3	5	5	11	14	23	29	38	41	58	74	98	65	78	..		44	
1					1					1	1	..	2	4	4	5	8	14	12	17	20	..			45
1					1					1	1	..	1	3	2	1	4	11	5	9	13	..	46		
7	2	2	1	1	13	2	2	3	4	3	5	8	19	28	31	43	88	106	129	134	166	4		47	
4	1	1			6	1		2	2	2	2	4	8	11	12	22	41	58	72	67	79	4			48
3	1	1	1	1	7	1	2	1	2	1	3	4	11	17	19	21	47	48	57	67	87	..	49		
								1	1		2	4	5	11	10	12	14	11	14	7	20	15		..		50
								1	1		1	2	3	9	7	11	11	8	8	2	9	7		..	51
											1	2	2	2	3	1	3	6	5	11	8	..	52		
											5	2	10	11	4	8	2	4	5	5	5	4		53	
											3	7	7	1	3	1	2	2	3	4	2	..			54
											3	2	3	4	1	5	1	2	3	2	1	..	55		
6			1		7	11	10	11	4	16	12	12	5	11	8	4	6	6	9	4	2	1		56	
4					4	7	4	10	1	9	8	5	3	8	5	4	3	4	6	2	1	1			57
2			1		3	4	6		1	3	7	4	7	2	3	3	3	2	3	2	1	..	58		
						5		1	4	4	3	1	1				1	1		1	..	1		59	
						3			1	3	4	3	1	1			1	1		1	..	1			60
						2		1	3	4	3	1	1				1	1		1	..	1	61		
458	43	11	5	2	519																			62	
257	22	3	3	2	287																				63
200	21	8	2		231																		64		
1					1																			65	
5					5	1	4	2	1				1		1	1	1			1		1			66
1					1	1	3	2					1		1	1	1			1		1	67		
4					4		1		1															68	
48	13	3	4	1	69	11	11	7	13	11	15	22	18	22	28	31	38	41	29	26	25	1			69
27	8	3	1	1	40	4	4	1	6	8	9	12	9	14	13	17	22	28	15	15	9	1	70		
21	5		3		29	7	7	6	7	3	6	10	9	8	15	14	16	13	14	11	16	..		71	
	1				1	1	2	6	1	2	2	1	2	4	6	7	6	14	17	14	13	..			72
						1	1	5	1	1	1	1	2	2	3	3	3	5	10	11	7	..	73		
						1	1	1		1	1	1			3	4	3	9	7	3	6	..		74	
1		1			3	5	7	5	7	2	8	1	2	8	5	6	8	6	10	12	3	7			75
1					2	3	3	2	5	4	4		1	3	4	3	4	4	8	2	4	..	76		
		1			1	2	4	3	2	2	4	1	1	5	2	5	2	6	4	1	3	..		77	
153	10	2			4	169	20	25	38	33	47	46	59	84	100	144	190	233	309	363	301	307			4	78
86	6				2	94	11	15	15	18	17	24	31	38	48	76	104	137	187	227	177	174	4		79
67	4	2			2	75	9	10	23	15	30	22	28	46	52	68	86	96	122	136	124	133	..	80	
1					1			1			5	1	2	3	9	7	15	28	28	28	24	10	1		
1					1						1	1	2	2	7	4	7	17	21	16	18	4	1		82
											4			1	2	3	8	11	7	12	6	6	..	83	
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VITAL STATISTICS OF MICHIGAN, 1900.

TABLE III.—Continued.—Causes of death in Michigan, by months.

Classification No.	Causes of death, 1900.	Sex.	Total deaths, 1900.	Months of death, 1900.											
				Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
60	Embolism.....	(Total. Males. Fem..)	42 20 22	6 4 2	3 3 2	5 3 2	2 2 2	5 1 4	3 1 3	4 1 3	7 2 5	1 2 1	1 3 1	3 1 1	2 1 1
61	Varices, hemor- rhoids.....	(Total. Males. Fem..)	2 2 2	1 1 1	.....	.....	1 1 .....	.....	.....	.....	.....	.....	.....	.....	.....
62	Phlebitis.....	(Total. Males. Fem..)	14 6 8	1 1 .....	.....	2 1 2	1 1	1 1	2 1 2	2 1 1	1 1 1	1 .....	.....	3 1 2	.....
63	Lymphangitis....	(Total. Males. Fem..)	3 2 1	1 1 .....	.....	.....	.....	2 1 1	.....	.....	.....	.....	.....	.....	.....
64	Other lymphatic diseases.....	(Total. Males. Fem..)	6 4 2	1 1	1 .....	.....	.....	1 1	1 .....	.....	.....	1 .....	.....	1 .....	.....
65	Hemorrhage.....	(Total. Males. Fem..)	42 24 18	3 2 1	3 2 3	4 4 3	2 2	4 1 3	4 1	5 3 2	2 1 1	2 1 1	4 2 2	5 3 2	4 1 3
66	Other circulatory diseases.....	(Total. Males. Fem..)	16 9 7	2 2	1 1	2 1 1	2 1 1	.....	1	3 .....	.....	1	1	1	2
67	Disease of the nose.....	(Total. Males. Fem..)	5 2 3	1 .....	.....	1 .....	.....	1	1 .....	.....	.....	.....	.....	1 .....	.....
68	Disease of larynx and thyroid....	(Total. Males. Fem..)	57 26 31	6 3 3	13 8 5	6 5 1	3	2 2 3	3 2	2	5 1 4	4 1 3	3	4 2 2	6 2 4
69	Acute bronchitis	(Total. Males. Fem..)	497 257 240	44 20 24	56 28 28	74 44 30	88 46 42	64 32 32	23 9 14	19 6 13	19 8 11	19 9 10	23 12 11	31 18 13	37 25 12
70	Chronic bron- chitis.....	(Total. Males. Fem..)	305 142 163	28 11 17	29 10 19	38 22 16	38 17 21	28 14 14	11 4 7	10 7 3	22 11 11	21 9 12	27 12 15	18 7 11	35 18 17
71	Broncho-pneu- monia.....	(Total. Males. Fem..)	353 186 167	45 21 24	40 20 20	45 27 18	55 28 27	33 14 19	20 10 10	16 13 3	15 6 9	10 7 3	18 8 10	19 9 10	37 28 14
72	Pneumonia.....	(Total. Males. Fem..)	2,035 1,089 946	219 112 107	278 161 117	328 173 155	340 184 156	196 112 84	106 61 45	57 23 34	43 24 19	59 30 29	91 43 48	109 55 54	209 111 98
73	Pleurisy.....	(Total. Males. Fem..)	159 89 70	14 6 8	20 11 9	27 12 15	18 10 8	11 6 5	11 8 3	9 5 4	5 1 4	6 3 3	9 8 1	14 11 6	15 11 4
74	Congestion of lungs.....	(Total. Males. Fem..)	191 100 91	24 11 13	22 12 10	16 7 9	15 8 7	15 10 5	13 8 5	11 7 4	9 6 3	11 7 5	9 10 2	20 8 10	26 8 18
75	Gangrene of lungs.....	(Total. Males. Fem..)	6 4 2	..... ..... .....	1 1 .....	..... ..... .....	1 1	..... ..... .....	1	1 1 1	1 ..... .....	..... ..... .....	..... ..... .....	1 ..... .....	..... ..... .....
76	Asthma and emphysema....	(Total. Males. Fem..)	144 84 60	11 9 2	7 7	15 10 5	19 11 8	18 14 4	15 6 9	11 4 7	7 5 2	3 2 1	10 3 7	12 10 2	16 10 6

TABLE III.—Continued.—Causes of death in Michigan, by months.

Classification No.	Causes of death, 1900.	Sex.	Total deaths, 1900.	Months of death, 1900.											
				Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
77	Other respiratory diseases.....	Total..	125	8	13	10	10	3	5	13	10	12	10	10	21
		Males..	58	2	7	6	2	2	4	7	4	4	4	7	13
		Fem..	67	6	6	4	8	1	1	6	10	8	6	3	8
78	Diseases of the mouth.....	Total..	42	3	1	2	2	4	5	2	2	9	5	5	2
		Males..	20	1	1	2	2	1	3	1	2	4	1	4	1
		Fem..	22	2	1	1	2	3	2	1	1	5	4	1	1
79	Diseases of pharynx and esophagus.....	Total..	53	2	4	9	4	3	3	5	5	3	7	5	3
		Males..	33	1	2	3	3	3	3	3	3	3	5	3	2
		Fem..	20	1	2	6	1	1	1	2	2	3	2	2	1
80	Ulcer of stomach	Total..	68	4	5	2	5	9	4	7	7	5	3	11	6
		Males..	42	1	3	2	2	7	3	6	5	3	3	5	2
		Fem..	26	3	2	1	3	2	1	1	2	2	1	6	4
81	Other diseases of stomach.....	Total..	582	38	39	47	55	51	40	36	62	61	54	50	49
		Males..	289	13	19	17	27	26	22	30	35	35	25	30	25
		Fem..	293	25	20	30	28	25	18	16	32	26	29	20	24
82	Infantile diarrhea.....	Total..	2,503	35	40	50	58	66	84	275	600	803	351	92	49
		Males..	1,344	18	22	27	30	40	50	154	334	411	187	51	29
		Fem..	1,159	17	18	23	28	26	34	121	266	392	164	41	29
83	Diarrhea and enteritis.....	Total..	446	22	27	22	26	27	18	41	62	84	64	31	22
		Males..	234	12	14	8	13	16	8	24	27	46	39	14	13
		Fem..	212	10	13	14	13	11	10	17	35	38	25	17	9
84	Dysentery.....	Total..	254	5	4	8	4	3	5	12	43	98	53	13	6
		Males..	115	1	2	5	2	3	3	3	21	44	22	7	5
		Fem..	136	4	2	3	2	1	2	9	22	54	31	6	1
86	Hernia and intestinal obstructions.....	Total..	243	17	22	20	21	13	9	23	23	20	27	29	19
		Males..	140	11	10	14	11	6	4	16	14	11	17	15	11
		Fem..	103	6	12	6	10	7	5	7	9	9	10	14	8
85, 87	Other diseases of the intestines..	Total..	115	6	7	10	7	13	8	8	9	9	9	14	15
		Males..	64	2	4	5	4	7	4	4	6	5	4	12	7
		Fem..	51	4	3	5	3	6	4	4	3	4	5	2	8
88	Acute yellow atrophy of liver	Total..	8	1	1	1	1	1	1	1	3	1	1	1	1
		Males..	1	1	1	1	1	1	1	1	1	1	1	1	1
		Fem..	7	1	1	1	1	1	1	1	2	1	1	1	1
90	Cirrhosis of liver	Total..	190	13	15	22	18	19	17	18	12	21	11	11	13
		Males..	114	9	10	10	12	13	11	12	7	10	6	6	8
		Fem..	76	4	5	12	6	6	6	6	5	11	5	5	5
89, 91, 92	Other diseases of the liver.....	Total..	396	34	26	43	44	36	25	42	28	33	29	25	31
		Males..	195	18	14	22	23	16	15	20	11	20	11	10	15
		Fem..	201	16	12	21	21	20	10	22	17	13	18	15	16
93	Peritonitis.....	Total..	342	33	29	25	29	33	26	29	33	28	28	13	37
		Males..	116	10	9	7	8	13	10	12	9	10	14	7	7
		Fem..	227	23	20	18	21	20	16	17	24	18	14	6	30
94	Other diseases of digestive system	Total..	14	1	1	1	1	2	1	2	3	2	1	1	1
		Males..	7	1	1	1	1	2	1	1	2	1	1	1	1
		Fem..	7	1	1	1	1	1	1	1	1	1	1	1	1
95	Iliac abscess....	Total..	221	15	17	11	16	24	13	17	40	29	14	10	15
		Males..	136	8	9	6	7	18	10	8	27	19	10	4	10
		Fem..	85	7	8	5	9	6	3	9	13	20	4	6	5
96	Acute nephritis..	Total..	209	17	24	20	17	18	15	19	16	21	18	10	16
		Males..	105	9	12	10	10	11	4	9	7	11	9	3	8
		Fem..	104	8	12	10	7	7	11	10	9	10	9	7	8

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Ages of decedents, 1900.

Ages of decedents, 1900.																							Classification No.
Ages in years under five.					Ages by five-year periods.																		
0.	1.	2.	3.	4.	5 to 4.	6 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 +	Unk.	
14	3				17	2	2	3	6	12	9	4	10	2	3	8	6	14	11	7	9	77	
6					6	1	1	2	2	5	2	4	7	1	2	4	3	5	6	3	5		
8	3				11	1	1	2	4	7	7		3	1	1	4	3	9	6	4	4		
32	5				37			1	1	1										1	1	78	
18	1				19																		
14	4				18			1	1	1										1	1		
10	4	2	3		19	8	2		2	4	3					4	4	2	2	1	2	79	
7	2	1	3		13	7	1		1	1	3					2	1	1	2				
3	2	1			6	1	1		1	3						2	3	1	1		1		
		1			1			3	1	5	4	4	2	3	1	7	9	8	8	5	6	1	80
		1			1			1	1	2	1	1	1	3	1	6	6	6	5	4	4		
								2	3	3	4	1				1	3	2	3	1	2		
203	23	5	3	4	238	5	2	4	8	8	9	13	12	14	18	34	35	43	42	41	56	81	
117	10	3	2	1	135	4	1		5	4	6	4	5	5	7	19	16	18	18	18	24		
86	13	2	1	1	103	1	1	4	3	4	3	9	7	9	11	15	19	25	24	23	32		
1933	404	113	31	21	2502																	82	
1055	197	63	18	10	1343																		
878	207	50	13	11	1159																		
					36	12	13	14	11	16	15	9	15	19	20	29	38	50	59	49	1	83	
					22	6	5	6	6	6	6	3	6	10	10	20	20	29	31	47	1		
					14	6	8	8	5	10	9	6	9	9	10	10	9	18	21	28	42		
60	25	15	5	2	107	6		2	1	1	3	3	3	3	4	7	8	17	23	26	38	2	84
34	15	6	3	2	60	5		1	1				1	2		2	4	8	10	13	1		
26	10	9	2		47	1		1		1	3	2	2	1	4	5	4	9	13	17	25	1	
39	7	3	4	2	55	3	2	5	13	10	4	8	7	15	15	16	18	23	22	15	12	86	
27	4	1	1	1	33	2	1	2	8	6	2	4	3	6	10	12	9	15	12	6	9		
12	3	2	4	1	22	1	1	3	5	4	2	4	4	9	5	4	9	8	10	9	3		
22	3	1	3	1	30	4	4	4	7	4	3	4	6	4	5	4	9	3	9	8	7	85	
12	2	1			15	3	2	2	4	1	2	4	3	4	2	6	1	5	6	4			87
10	1		3	1	15	1	2	2	3	4	2	2	2	1	1	2	3	2	4	2	3		
								1	1	1		1				1	1		1	1		88	
								1	1	1		1				1	1			1			
																1	1						
1		1	1		3	1	1	1		6	1	9	12	15	22	24	25	28	25	8	9	90	
		1	1		2	1	1			4	1	6	4	10	11	18	14	15	14	7	6		
1					1			1		2		3	8	5	11	6	11	13	11	1	3		
20	4	3	2		29	7	7	7	9	10	11	11	24	22	35	39	43	40	49	27	25	1	89
15	2	3	1		21	2	3	4	4	5	5	8	15	6	15	17	17	23	16	11	1		
6	2		1		8	5	4	3	5	5	6	3	9	16	18	22	18	27	26	11	14		
16	10	3	5	1	35	24	19	32	35	41	35	27	16	14	7	11	10	16	5	7	7	2	93
7	4	2	3	1	17	15	9	10	6	6	5	4	3	7	3	7	4	6	3	6	4	1	
9	6	1	2		18	9	10	22	29	35	30	23	13	7	4	7	6	10	2	1	3	1	
3					8		1			1				1	3			3	2			94	
1					3					1				2				2	1				
2					2		1						1	1				1	1				
1	2	1	3	3	10	18	35	32	19	22	18	26	11	7	7	4	4	3	1	4		95	
1	1		2	2	6	10	20	20	12	13	14	18	6	5	4	2	3	1	1				
	1	1	1	1	4	8	15	12	7	9	4	8	5	2	3	2	1	2		3			
16	8	4	4	2	34	13	7	6	10	7	11	13	12	11	6	10	8	17	17	13	13	1	96
8	5		4	1	18	7	4	2	2	3	4	2	5	3	2	5	5	14	11	9	8	1	
8	3	4		1	16	6	3	4	8	4	7	11	7	8	4	5	3	6	4	5			

TABLE III.—Continued.—Causes of death in Michigan, by months.

Classification No.	Causes of death, 1900.	Sex.	Total deaths, 1900.	Months of death, 1900.											
				Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
97	Bright's disease..	Total..	852	71	69	85	74	65	76	61	67	66	64	71	83
		Males..	530	50	43	55	53	43	43	36	39	38	42	43	45
		Fem..	322	21	26	30	21	22	33	25	28	28	22	28	38
98-100	Other diseases of the kidneys.	Total..	111	6	14	8	8	7	13	8	6	8	12	16	5
		Males..	66	5	8	6	4	5	8	3	3	4	9	8	3
		Fem..	45	1	6	2	4	2	5	5	3	4	3	8	2
101	Vesical calculi..	Total..	4	.....	.....	.....	2	.....	.....	1	1	.....	.....	.....	.....
		Males..	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
		Fem..	3	.....	.....	.....	2	.....	.....	1	.....	.....	.....	.....	.....
102	Diseases of the bladder.....	Total..	170	17	18	11	19	13	9	13	15	16	9	23	7
		Males..	151	16	17	10	12	11	7	13	11	16	9	22	7
		Fem..	19	1	1	1	7	2	2	.....	4	.....	.....	1	.....
103-106	Diseases of male genital organs.	Total..	58	7	10	7	5	7	5	4	5	2	1	4	1
		Males..	58	7	10	7	5	7	5	4	5	2	1	4	1
		Fem..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
111	Uterine tumor..	Total..	31	3	2	2	4	1	3	2	3	5	4	2	.....
		Males..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
		Fem..	31	3	2	2	4	1	3	2	3	5	4	2	.....
109-110-112	Other uterine diseases.....	Total..	23	5	1	2	.....	2	1	3	2	.....	2	2	3
		Males..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
		Fem..	23	5	1	2	.....	2	1	3	2	.....	2	2	3
113	Ovarian tumors.	Total..	36	3	2	1	4	4	4	2	3	3	2	2	6
		Males..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
		Fem..	36	3	2	1	4	4	4	2	3	3	2	2	6
107-108-114-115	Other diseases of female genital organs.....	Total..	68	5	8	5	4	4	3	3	9	9	5	7	6
		Males..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
		Fem..	68	5	8	5	4	4	3	3	9	9	5	7	6
116-118-123-124	Accidents of pregnancy.....	Total..	118	8	9	9	14	14	8	6	13	10	11	5	11
		Males..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
		Fem..	118	8	9	9	14	14	8	6	13	10	11	5	11
119-120-122	Puerperal septicemia.....	Total..	249	12	21	45	29	24	19	21	18	13	14	15	18
		Males..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
		Fem..	249	12	21	45	29	24	19	21	18	13	14	15	18
121	Puerperal albuminuria.....	Total..	85	5	8	7	7	12	6	4	6	5	8	7	10
		Males..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
		Fem..	85	5	8	7	7	12	6	4	6	5	8	7	10
125	Erysipelas.....	Total..	102	13	19	12	19	11	9	1	.....	.....	8	2	8
		Males..	69	8	13	10	14	7	5	1	.....	.....	5	1	5
		Fem..	33	5	6	2	5	4	4	.....	.....	.....	3	1	3
126	Gangrene.....	Total..	104	5	9	14	4	6	12	11	8	8	7	9	11
		Males..	54	3	2	9	4	2	6	5	3	4	2	7	7
		Fem..	50	2	7	5	.....	4	6	6	5	4	5	2	4
127	Anthrax.....	Total..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
		Males..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
		Fem..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
128	Phlegmon, acute abscess.....	Total..	63	5	4	5	2	6	3	9	6	3	7	5	8
		Males..	35	5	2	3	1	2	1	5	3	2	4	1	6
		Fem..	28	.....	2	2	1	4	2	4	3	1	3	4	2
129	Other diseases of the skin.....	Total..	27	1	1	4	2	3	3		2	1	3	3	4
		Males..	15	1		1	1	2	2		1		1	2	4
		Fem..	12		1	3	1	1	1		1	1	2	1	

CAUSES OF DEATH.

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ages and sex, during the year 1900. (Stillbirths included.)

Ages of decedents, 1900.																							Classification No.
Ages in years under five.					Ages by five-year periods.																		
0.	1.	2.	3.	4.	0 to 4.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 +	Unk.	
5	1	...	...	2	8	11	6	12	20	29	28	35	47	42	85	75	83	100	91	101	78	1	97
3	1	...	...	1	5	6	5	6	7	9	17	14	28	28	57	58	51	66	56	68	49	...	
2	...	...	...	1	3	5	1	6	13	20	11	21	19	14	28	17	32	34	35	33	29	1	98-100
7	...	...	...	1	8	1	...	1	1	...	3	8	7	2	4	10	5	6	13	17	25	...	
4	...	...	...	1	5	1	...	...	...	...	2	4	1	1	1	7	2	4	8	10	20	...	
3	...	...	...	3	...	...	...	1	1	...	1	4	6	1	3	3	3	2	5	7	5	...	
...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	2	...	1	...	101	
...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	1	...		
4	2	...	...	...	6	1	1	...	2	...	...	2	1	2	1	6	8	23	36	40	41	...	102
3	1	...	...	...	4	...	...	...	2	...	...	2	1	2	1	5	4	21	33	38	37	...	
1	1	...	...	...	2	1	...	...	...	...	...	...	...	...	...	1	4	2	3	2	4	...	
2	...	...	...	...	2	...	...	...	...	2	1	...	...	...	2	1	4	5	9	11	21	...	103, 106
2	...	...	...	...	2	...	...	...	...	2	1	...	...	...	2	1	4	5	9	11	21	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	111
...	...	...	...	...	...	...	...	...	1	2	2	5	7	3	3	2	2	3	...	1	...	...	
...	...	...	...	...	...	...	...	...	1	2	2	5	7	3	3	2	2	3	...	1	...	...	109, 110, 112
...	...	...	...	...	...	...	...	...	2	2	1	6	5	1	3	2	...	...	1	...	...	...	
...	...	...	...	...	...	...	...	...	1	4	1	3	4	5	5	3	2	4	3	1	...	...	113
...	...	...	...	...	...	...	...	...	1	4	1	3	4	5	5	3	2	4	3	1	...	...	
...	...	...	...	...	...	...	...	...	5	11	15	14	8	6	6	3	...	...	...	...	...	...	107, 108, 114, 115
...	...	...	...	...	...	...	...	...	5	11	15	14	8	6	6	3	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	6	14	38	33	14	11	2	...	...	...	...	...	...	...	116-118, 123, 124
...	...	...	...	...	...	...	...	...	6	14	38	33	14	11	2	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	19	55	68	48	38	20	1	...	...	...	...	...	...	...	119, 120, 122
...	...	...	...	...	...	...	...	...	19	55	68	48	38	20	1	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	14	21	18	15	12	3	1	1	...	...	...	...	...	...	121
...	...	...	...	...	...	...	...	...	14	21	18	15	12	3	1	1	...	...	...	...	...	...	
34	3	1	...	1	39	...	1	1	4	3	4	7	4	9	1	6	6	4	10	2	1	...	125
21	2	1	...	...	24	...	1	1	3	3	2	4	3	7	1	5	3	4	5	2	1	...	
13	1	...	...	1	15	...	...	...	1	...	2	3	1	2	...	1	3	...	5	...	...	...	126
...	...	...	...	...	...	...	...	...	1	1	1	1	...	2	3	9	4	6	13	16	18	29	
...	...	...	...	...	...	...	...	...	1	1	1	...	...	2	...	2	1	2	5	12	15	...	127
...	...	...	...	...	...	...	...	...	...	...	1	...	...	3	...	7	3	4	8	4	6	14	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	128
8	3	2	3	...	16	2	...	2	...	2	6	...	4	4	6	1	7	...	5	3	5	...	
5	1	1	2	...	9	1	...	1	...	2	2	...	1	2	5	1	4	...	2	2	3	...	129
3	2	1	1	...	7	1	...	1	...	...	4	...	3	2	1	...	3	...	3	1	2	...	
12	3	...	...	...	15	...	...	1	1	1	1	1	...	...	1	1	1	1	...	3	1	...	129
6	2	...	...	...	8	...	...	...	1	1	1	...	...	...	1	1	1	1	...	1	1	...	
6	1	...	...	...	7	...	...	...	1	...	...	1	...	...	1	...	...	...	...	2	...	...	129
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	

TABLE III.—Continued.—Causes of death in Michigan, by months,

Classification No.	Causes of death, 1900.	Sex.	Total deaths, 1900.	Months of death, 1900.											
				Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
130	Pott's disease....	Total..	12	1		1	2			2	1	1	2		2
		Males..	6							2		1	1		2
		Fem..	6	1		1	2				1		1		
131	Chronic or cold abscess.....	Total..													
		Males..													
		Fem..													
133	White swellings.	Total..	2	1											1
		Males..	2	1											1
		Fem..													
132, 134, 136	Other diseases of locomotor sys- tem.....	Total..	43		5	4	4	2	5	2	3	8	4	2	4
		Males..	24		1	2	1	2	3	1	1	5	4	2	2
		Fem..	19		4	2	3		2	1	2	3			2
137	Malformations...	Total..	206	15	10	16	25	18	18	14	25	15	18	12	20
		Males..	100	9	7	5	13	10	7	7	16	7	6	4	9
		Fem..	106	6	3	11	12	8	11	7	9	8	12	8	11
138a	Congenital de- bility.....	Total..	784	54	45	57	55	62	59	80	78	106	84	56	48
		Males..	427	27	23	32	29	32	31	31	27	26	24	22	28
		Fem..	357	27	22	25	26	34	27	33	33	43	39	28	20
138b	Premature birth.	Total..	620	49	66	61	62	54	51	46	47	49	44	35	56
		Males..	363	32	40	36	39	31	31	27	26	24	24	22	31
		Fem..	253	17	25	25	22	21	20	19	21	25	20	13	25
		Unk..	4		1		1	2							
139	Want of care....	Total..													
		Males..													
		Fem..													
140	Other diseases of infancy....	Total..	37	3	3	4	4	7	5		2	4	1	1	3
		Males..	26	3	3	2	1	4	4		1	3	1	1	3
		Fem..	11			2	3	3	1		1	1			
141	Senile debility....	Total..	674	67	52	65	69	52	52	39	54	63	51	56	54
		Males..	317	32	27	26	32	28	19	16	25	30	29	26	27
		Fem..	357	35	25	39	37	24	33	23	29	33	22	30	27
	<i>A. Suicide.....</i>	Total..	211	25	9	15	21	23	16	28	19	14	15	8	18
		Males..	154	20	7	11	16	18	12	22	11	10	9	5	13
		Fem..	57	5	2	4	5	5	4	6	8	4	6	3	5
142a	Poison.....	Total..	57	1	3	4	7	4	7	10	7	2	6	2	4
		Males..	32	1	2	2	4	3	5	5	3	2	1	2	2
		Fem..	25		1	2	3	1	2	5	4		5		2
142b	Asphyxia.....	Total..	1										1		
		Males..	1										1		
		Fem..													
142c	Strangulation....	Total..	58	10	1	4	4	9	3	5	6	5	6	2	3
		Males..	47	8	1	4	4	7	2	5	4	3	5	1	3
		Fem..	11	2				2	1		2	2	1	1	
142d	Drowning.....	Total..	13	2	1		1	2		2			1	1	3
		Males..	8	2	1		1	1		2			1		
		Fem..	5					1						1	3
142e	Firearms.....	Total..	54	8	2	4	4	7	5	7	3	6	1	2	5
		Males..	47	6	2	3	3	6	5	7	3	5	1	1	5
		Fem..	7	2		1	1	1				1		1	
142f	Cutting instru- ments.....	Total..	11	3		1	1	1	1	2		1			1
		Males..	9	3		1	1	1		2					1
		Fem..	2						1			1			

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Ages of decedents, 1900.

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VITAL STATISTICS OF MICHIGAN, 1900.

TABLE III.—Continued.—Causes of death in Michigan, by months.

Classification No.	Causes of death, 1900.	Sex.	Total deaths, 1900.	Months of death, 1900.											
				Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
142g	Fall from height.	{ Total. Males. Fem..	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....
142h	Crushing.....	{ Total. Males. Fem..	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....
142i	Other methods...	{ Total. Males. Fem..	17 10 7	1 1 1	2 1 1	2 3 1	4 3 1	..... ..... .....	..... 1 1	2 1 2	3 1 .....	..... ..... .....	..... 1	1 1	2 2
	B. Accidental...	{ Total. Males. Fem..	1,740 1,385 355	118 96 22	117 91 26	132 103 29	148 110 38	136 109 27	167 140 27	199 160 39	186 151 35	126 106 20	143 109 34	127 103 24	141 107 34
143	Fractures.....	{ Total. Males. Fem..	200 138 62	19 16 3	12 7 5	26 18 8	16 7 9	11 7 4	16 12 4	22 15 7	14 10 4	15 12 3	21 12 9	12 10 2	16 12 4
144	Dislocations	{ Total. Males. Fem..	18 13 5	..... ..... .....	1 1	2 2	3 2 1	2 1 1	3 3	1 1	3 2	1 1	1	1 1 .....	..... ..... .....
145a	Gunshot.....	{ Total. Males. Fem..	62 57 5	7 7	2 2	5 5	5 5	3 3 .....	..... ..... .....	6 5 1	1 1	2 2	12 10 2	15 14 1	4 3 1
145b	Lightning	{ Total. Males. Fem..	22 20 2	..... ..... .....	..... ..... .....	1 1 .....	..... ..... .....	9 7 2	4 4	3 3	5 5 .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....
145c	Mining accidents	{ Total. Males. Fem..	72 72	8 8	8 8	5 5	6 6	7 7	13 13	5 5	3 3	6 6	2 2	4 4	5 5
145d	Railroad acci- dents.....	{ Total. Males. Fem..	218 210 8	12 12	20 19 1	16 16	18 18	21 18 3	14 12 2	16 16	31 29 2	14 14	20 20	18 18	18 18
145e	Vehicles and horses.....	{ Total. Males. Fem..	61 49 12	3 3	5 3 2	2 2	5 5	5 6 1	7 4 1	5 3 4	6 5 1	7 7	5 4 1	3 3	6 4
145f	Electric railway accidents.....	{ Total. Males. Fem..	20 17 3	..... ..... .....	..... ..... .....	..... ..... .....	1 1	2 1 1	1 1	3 2 1	1 1	6 6	2 2	1 1	3 2
146a	Fire (burn).....	{ Total. Males. Fem..	111 49 62	10 3 7	9 3 6	14 7 7	11 4 7	8 5 3	10 6 4	2 2	2 1 1	5 3 2	13 6 7	12 5 7	15 6 9
146b	Hot liquid (scald)	{ Total. Males. Fem..	23 13 10	1 1	4 2 2	5 3	3 3	3 1 2	2 2	1	1 1	..... ..... .....	1 ..... .....	..... ..... .....	2 1
146c	Corrosive sub- stance.....	{ Total. Males. Fem..	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....
147a	Sunstroke.....	{ Total. Males. Fem..	32 22 10						2 2	7 6 1	21 13 8	1 1		1	
147b	Freezing.....	{ Total. Males. Fem..	8 8		4 4	3 3								1 1	

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VITAL STATISTICS OF MICHIGAN, 1900.

TABLE III.—Concluded.—Causes of death in Michigan, by months,

Classification No.	Causes of death, 1900.	Sex.	Total deaths, 1900.	Months of death, 1900.											
				Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
148	Accidental drowning	Total	256	8	2	1	9	21	35	65	46	28	15	12	14
		Males	237	7	2	1	9	20	33	61	42	25	13	10	14
		Fem.	19	1				1	2	4	4	3	2	2	
149	Starving	Total													
		Males													
		Fem.													
150	Noxious gases.....	Total	9	1	1					2		1		3	1
		Males	4		1					1		1		1	
		Fem.	5	1						1				2	1
151	Other accidental poisons.....	Total	74	6	2	5	14	7	9	8	5	6	4	3	5
		Males	44	3	1	4	5	7	6	5	3	3	3	1	3
		Fem.	30	3	1	1	9		3	3	2	3	1	2	2
152a	Other accidents..	Total	554	43	47	47	57	35	53	51	47	34	47	42	51
		Males	432	36	39	36	45	26	44	36	36	26	36	34	38
		Fem.	122	7	8	11	12	9	9	15	11	8	11	8	13
	<i>C. Homicide.....</i>	Total	15	1		1	1	1			3	5	1		2
		Males	10			1	1	1			1	4	1		2
		Fem.	5	1							2	1	1		
152b	Homicide	Total	15	1		1	1	1			3	5	1		2
		Males	10			1	1	1			1	4	1		2
		Fem.	5	1							2	1	1		
153	Exhaustion, cachexia, debility	Total	368	32	30	35	34	30	31	26	28	28	24	27	43
		Males	195	20	19	20	15	13	19	13	16	12	10	15	23
		Fem.	173	12	11	15	19	17	12	13	12	16	14	12	20
154	Fever, inflammation	Total	31	1	2	1	1	2	3	2	3	6	4	4	2
		Males	19		2			1	3	2	3	3	1	3	1
		Fem.	12	1		1	1	1				3	3	1	1
155a	Dropsy	Total	184	16	15	14	15	13	19	15	16	18	9	18	16
		Males	94	10	2	6	11	5	13	8	9	8	4	9	9
		Fem.	90	6	13	8	4	8	6	7	7	10	5	9	7
155b	Heart failure.....	Total	367	37	37	38	33	28	15	31	30	27	24	36	31
		Males	208	22	10	18	25	13	9	18	21	16	13	20	25
		Fem.	159	15	27	20	8	15	6	13	9	11	11	16	8
156	Asphyxia, cyanosis.....	Total	17	3			1	2	1	2	2	1	2		3
		Males	9	2				1	1	1	1				3
		Fem.	8	1			1	1		1	1	1	2		
157	Sudden death.....	Total	1								1				
		Males													
		Fem.	1								1				
158	Abdominal tumor	Total	21	1	1		4	3	2	2	3	2	2	1	
		Males	5		1		1		1			1	1		
		Fem.	16	1			3	3	1	2	3	1	1	1	
159	Other tumors.....	Total	25	2	1	3	1	6	4	2		3		1	2
		Males	10	1			1	2	3	1				1	1
		Fem.	15	1	1	3		4	1	1		3			1
161	Unknown or not specified causes	Total	421	33	32	31	47	38	28	30	39	41	41	34	27
		Males	223	17	23	16	21	26	14	17	21	19	19	17	13
		Fem.	194	16	9	14	25	11	14	12	18	22	22	17	14
		Unk.	4			1	1	1		1					

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[illegible]

CAUSES OF DEATH.

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ing the year 1900. (Stillbirths included.)

Keweenaw.																									Classification No.	
Clare.	Clinton.	Crawford.	Delta.	Dickinson.	Eaton.	Emmet.	Genesee.	Gladwin.	Gogebic.	Gd. Traverse.	Gratiot.	Hillsdale.	Houghton.	Huron.	Ingham.	Ionia.	Iosco.	Iron.	Isabella.	Jackson.	Kalamazoo.	Kalkaska.	Kent.	Keweenaw.		
101	321	22	383	248	399	223	551	70	267	305	398	408	954	357	578	502	121	76	302	597	737	105	1893	45		
4	9	..	10	15	7	7	17	3	23	8	6	9	40	14	13	14	5	..	7	19	15	6	100	2		
3	10	1	14	....	9	5	5	2	12	8	13	6	20	15	33	11	2	1	8	26	16	6	38	..	1	
1	1	..	....	....	1	....	2	..	....	....	....	....	....	....	....	3	....	..	1	....	....	1	3	..	1a	
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	
....	....	....	....	....	....	1	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	2	..	4	
1	1	..	3	....	3	1	....	2	....	5	5	5	3	2	2	7	....	3	2	1	4	7	25	1	5	
1	....	..	6	8	2	....	1	6	1	1	....	....	47	5	5	....	....	....	1	....	2	1	14	5	6	
1	1	..	1	2	1	....	4	..	4	3	6	....	6	....	2	7	....	6	2	....	10	1	12	..	7	
1	2	..	9	4	1	....	3	..	4	2	....	....	4	5	16	1	2	2	3	2	5	....	15	..	8a	
....	....	..	2	1	1	....	....	....	....	....	1	....	....	....	....	1	1	....	1	1	....	....	16	..	8b	
....	1	..	....	....	....	....	3	....	....	....	....	....	4	1	1	....	2	..	1	1	....	....	5	1	8c	
2	2	..	3	2	5	5	10	..	1	1	8	16	4	6	15	5	5	1	2	10	15	2	28	..	9	
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	10	
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	11	
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	12	
....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	13a	
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	13b	
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	13c	
2	2	..	1	2	2	1	1			2	1	1	7		5	1	1	1	1	1	4	2		7	..	14
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	15	
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	16	
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	17	
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	18	
2	2	..	....	....	12	2	1	1	....	....	1	4	....	3	3	7	2	....	....	3	5	....	5	..	19-20	
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	21	

TABLE IV.—Continued.—Causes of death in Michigan.

Classification No.	Causes of death, 1900.	Counties—Alcona													
		State.	Alcona.	Alger.	Allegan.	Alpena.	Antrim.	Arenac.	Baraga.	Barry.	Bay.	Benzie.	Berrien.	Branch.	Calhoun.
22a	<i>Tuberculosis—</i> of the lungs.....	2,018	4	2	40	15	15	5	2	15	50	6	26	24	35
22b	of the meninges.....	136	...	...	3	1	2	...	...	...	3	2	3	3	1
22c	of the peritoneum.....	129	...	1	1	...	2	...	...	2	2	1	5	2	6
22d	of the skin.....	6	...	...	1	...	...	...	...	...	...	...	...	1	...
22e	of other organs.....	56	...	...	1	1	...	...	...	1	4	1	5	...	1
22f	general.....	133	...	...	2	...	...	...	...	...	4	...	5	2	7
23	Scrofula.....	22	...	...	1	1	...	...	...	1	1	...	2	...	...
24	Syphilis.....	49	...	...	...	...	...	...	...	...	1	...	...	1	...
25a	<i>Cancer—</i> of the mouth.....	55	...	...	...	...	...	1	...	...	2	1	2	1	4
25b	of the stomach or liver....	566	...	...	9	2	...	1	...	8	12	1	11	13	20
25c	of the intestines or rectum.	137	...	...	2	1	1	...	...	2	8	...	4	1	6
25d	of the uterus.....	201	...	...	3	...	3	...	...	3	...	2	1	3	6
25e	of the breast.....	134	...	...	2	1	1	...	1	1	1	1	2	1	4
25f	of the skin.....	82	...	...	...	1	1	...	...	3	2	...	2	1	1
25g	of other organs.....	285	...	...	7	3	2	...	...	1	10	...	7	7	5
26-27	Rheumatism.....	243	...	...	4	2	2	3	...	5	1	1	6	7	8
28	Diabetes.....	224	...	...	3	2	1	...	...	10	2	...	5	4	10
29	Exophthalmic goitre.....	17	...	...	...	...	...	...	...	1	...	...	...	...	...
30	Addison's disease.....	15	...	...	1	...	...	...	...	...	1	...	...	...	1
31	Leukemia.....	35	...	...	...	...	...	...	...	...	1	...	...	...	1
32	Anemia, chlorosis.....	180	...	...	7	...	3	...	...	3	4	...	1	4	3
33	Other general diseases.....	7	...	...	...	...	...	...	...	...	...	...	...	...	...
34	Alcoholism.....	71	...	...	...	...	...	...	...	...	3	...	4	...	1
35-37	Chronic poisonings.....	20	...	1	...	...	...	...	...	...	...	...	...	...	...
LOCAL DISEASES.															
III. DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SENSE.															
38	Encephalitis.....	96	...	...	2	...	1	...	...	...	4	1	3	2	1
39a	(Simple meningitis.....	514	...	2	4	4	9	1	1	1	17	...	3	2	6
39b	(Cerebrospinal meningitis...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
42	Cerebral congestion and hemorrhage.....	1,250	4	2	20	1	5	3	...	17	33	3	29	25	39
43	Cerebral softening.....	89	...	...	4	1	...	...	...	2	1	...	7	...	3
44	Paralysis.....	788	...	...	12	4	6	4	3	7	12	2	16	22	24

CAUSES OF DEATH.

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by counties, during the year 1900. (Stillbirths included.)

to Keweenaw.

Chippewa.	Clare.	Clinton.	Crawford.	Delta.	Dickinson.	Eaton.	Emmet.	Genesee.	Gladwin.	Gogebic.	Gd. Traverse.	Gratiot.	Hillsdale.	Houghton.	Huron.	Ingham.	Ionia.	Iosco.	Iron.	Isabella.	Jackson.	Kalamazoo.	Kalkaska.	Kent.	Keweenaw.	Classification No.
21	6	25	1	20	12	23	11	23	5	8	26	21	29	53	15	31	40	7	2	22	32	40	2	120	3	22a
1	1	.....	.....	.....	4	1	...	1	...	...	2	.....	.....	15	1	1	3	1	1	2	1	2	...	9	...	22b
1	.....	.....	.....	1	5	.....	1	.....	...	2	.....	3	.....	...	1	3	5	...	...	1	4	.....	...	10	...	22c
.....	.....	.....	.....	.....	.....	.....	.....	1	.....	...	...	1	1	3	...	2	...	...	...	...	2	1	...	1	...	22d
.....	.....	.....	.....	.....	.....	.....	.....	1	.....	...	...	1	1	3	...	2	...	...	...	...	2	1	...	2	...	22e
.....	.....	.....	.....	.....	2	2	.....	...	...	2	2	2	3	7	2	1	...	...	...	2	...	3	...	6	...	22f
.....	.....	.....	.....	.....	.....	.....	.....	1	.....	...	1	1	...	...	...	...	...	...	...	...	...	...	2	...	...	23
.....	.....	.....	.....	.....	1	.....	.....	...	...	...	1	...	...	...	...	...	...	...	...	...	3	1	...	1	...	24
.....	.....	.....	.....	.....	1	2	1	1	...	...	...	...	1	1	...	1	3	...	2	...	2	...	3	...	...	25a
2	3	5	...	4	3	10	4	13	1	1	4	4	4	13	4	12	6	...	2	3	17	13	...	41	1	25b
1	1	1	...	.....	1	1	.....	.....	.....	.....	.....	2	2	3	...	4	1	...	...	1	4	5	...	11	...	25c
1	...	3	...	1	...	4	...	2	...	1	5	4	4	...	4	4	...	1	...	7	5	...	15	...	...	25d
...	1	2	...	1	1	3	...	4	...	2	3	5	1	2	...	5	...	...	...	3	7	1	17	...	...	25e
1	...	1	...	.....	1	4	...	...	1	1	1	1	1	1	...	...	...	...	...	...	1	...	6	...	...	25f
1	...	5	...	.....	3	4	...	6	...	3	2	8	8	2	6	1	...	4	2	4	2	4	1	25	...	25g
1	...	4	...	6	2	3	4	7	2	...	2	5	2	2	...	4	3	2	1	...	4	6	...	10	...	26-27
1	1	2	...	3	...	5	...	7	1	2	4	7	6	3	5	4	1	...	1	5	2	...	12	...	...	28
.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	2	.....	.....	.....	.....	1	.....	.....	.....	.....	...	1	.....	...	...	29
.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	1	1	.....	...	...	...	30
.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	2	1	2	.....	.....	.....	.....	.....	.....	...	1	...	2	...	31
.....	.....	4	...	2	.....	4	2	3	2	...	1	3	3	2	4	2	2	...	3	2	2	...	11	...	...	32
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	33
2	1	.....	.....	7	.....	.....	1	...	1	...	1	2	4	.....	.....	.....	1	.....	.....	.....	2	.....	...	5	...	34
.....	.....	.....	.....	1	.....	.....	.....	1	...	...	...	.....	.....	.....	.....	.....	1	.....	.....	1	2	1	1	...	...	35-37
.....	...	1	1	1	2	1	3	3	...	3	...	1	1	1	1	1	2	...	...	1	...	1	1	10	...	38
4	1	6	...	7	5	2	5	12	2	2	3	5	2	21	8	14	6	...	1	5	8	7	2	25	1	39a
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	39b
6	3	16	...	3	...	14	8	31	1	2	13	16	18	13	6	18	30	4	...	12	33	50	5	83	...	42
1	...	1	...	.....	.....	4	.....	.....	...	...	1	1	3	1	1	4	5	...	...	2	3	...	5	...	...	43
1	6	15	...	4	...	15	7	14	...	2	6	16	15	4	2	22	17	1	1	8	30	20	2	34	...	44

TABLE IV.—Continued.—Causes of death in Michigan,

Classification No.	Causes of death, 1900.	Counties—Alcona											
		State.	Alcona.	Alger.	Allegan.	Alpena.	Antrim.	Arenac.	Baraga.	Barry.	Bay.	Benzie.	Berrien.
45	General paralysis of insane..	127	...	...	...	...	...	...	...	2	1	1	3
46	Other forms of insanity.....	65	...	1	...	...	...	...	...	...	...	...	1
47	Epilepsy	139	...	3	...	...	...	...	...	1	...	...	3
48	Convulsions	23	...	2	...	...	...	...	...	...	1	...	1
49	Convulsions of infants.....	519	2	3	11	2	4	3	1	10	1	3	2
50	Tetanus	19	...	...	...	...	...	...	...	2	...	1	...
40-41, 51-54 }	Other nervous diseases.....	418	...	6	1	4	...	...	10	6	1	3	2
IV. DISEASES OF THE CIRCULATORY SYSTEM.													
55	Pericarditis	99	...	1	...	1	...	...	1	1	...	6	4
56	Endocarditis.....	102	...	...	1	1	...	...	1	1	...	...	3
57	Organic heart disease	2,472	1	1	48	14	15	6	1	42	51	10	56
58	Angina pectoris.....	163	...	2	1	...	...	...	1	1	...	7	3
59	Diseases of the arteries	98	...	2	1	...	...	...	1	1	1	1	...
60	Embolism.....	42	...	1	2	...	...	...	...	...	...	1	2
61	Varices, hemorrhoids.....	2	...	...	...	...	...	...	...	...	...	...	...
62	Phlebitis	14	...	...	...	...	...	...	...	...	...	...	1
63	Lymphangitis	3	...	...	...	...	...	...	...	...	...	...	...
64	Other lymphatic diseases	6	...	...	...	...	...	...	...	...	...	...	...
65	Hemorrhage.....	42	...	1	...	1	...	...	1	...	...	...	...
66	Other circulatory diseases ...	16	...	...	...	...	...	...	...	...	...	...	2
V. DISEASES OF THE RESPIRATORY SYSTEM.													
67	Diseases of the nose.....	5	...	...	...	...	...	...	...	...	...	...	1
68	Diseases of larynx and thyroid	57	...	...	2	...	...	...	...	2	...	2	1
69	Acute bronchitis.....	497	...	3	14	...	3	1	19	...	6	2	4
70	Chronic bronchitis.....	305	...	4	4	5	4	...	1	6	...	3	2
71	Broncho-pneumonia.....	353	...	5	2	2	...	...	1	6	...	7	2
72	Pneumonia.....	2,035	5	2	21	15	17	22	1	16	38	8	25
73	Pleurisy	159	...	3	...	...	...	...	1	1	2	2	7
74	Congestion of lungs.....	191	...	3	...	1	1	1	7	1	2	2	6
75	Gangrene of lungs	6	...	...	...	...	...	...	...	...	...	...	...
76	Asthma and emphysema.....	144	...	1	3	1	3	...	...	1	...	4	...
77	Other respiratory diseases ...	125	1	...	2	2	...	...	1	3	...	1	...

CAUSES OF DEATH.

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by counties, during the year 1900. (Stillbirths included.)

to Keweenaw.

to Keweenaw.																										Classification No.	
Chippewa.	Clare.	Clinton.	Crawford.	Delta.	Dickinson.	Eaton.	Emmet.	Genesee.	Gladwin.	Gogebic.	Gd. Traverse.	Gratiot.	Hillsdale.	Houghton.	Huron.	Ingham.	Ionia.	Iosco.	Iron.	Isabella.	Jackson.	Kalamazoo.	Kalkaska.	Kent.	Keweenaw.		
		1		1	1	1	5				10		4				4	2			2	20		1	45		
	1						2	2			2		2					3				8		1	46		
1	1	1	1	1	2	2	2	1			6	2	5	2			2	1	1		4	1	16		6	47	
											2			1				1			1	1	1		1	48	
11				8	6	4	3	8		6	3	5	2	24	10		2	3	2		2	3	8	1	17	3	49
				1	1		1														1				1	50	
	1	3	1		4	6	3	9	1	2	11	5	5	11	5		13	8			4	5	17	2	31	1	{ 40-41, 51-54
						3	1	3	1		3	2	1	1			2		1		1	1	4		4	55	
1					2	1	1		2					1	4	1						9	5		5	56	
14	6	40	2	12	7	47	8	52	1	4	23	35	41	32	27		52	47	8	2	19	64	57	4	177	2	57
1	1	3			2	3	1	5			2	1	5	1			3	4				2	4		3	58	
		1					1	4			2		2	3	2		1	1				1	8		6	59	
					1		2			1	1	1	2	3									1		4	60	
														1	1	1										61	
							1							1	1	1										62	
																										63	
							1																			64	
		1					1	1		1	1		1	1			2	2				1	1		3	65	
1															1		1	1				3			1	66	
																										67	
		1			2		1		1	1	1		1		1					1	1	2	1		2	68	
15			1	12	6	1	1	6		9	4	5	1	22	10		5	5	1	3	2	3	6		17	1	69
3	4	2		2	1	1	2	10		1	1	3	4	6	1		4	7				3	8		20	1	70
4	2	3		8	5	2		3		2	2	4	1	11	1		6	3	3	2	2	3	7	2	19		71
25	5	15	2	16	16	20	17	20	7	18	15	28	27	65	21		26	29	7	4	20	30	35	5	104	4	72
1		2				1	3			2	2	1	1	6	2		4	1		1		4	2	1	12		73
		3	1	1		2	1	5					5	1	4		6	3			2	1	2		25	1	74
1						1																				75	
1		3			2		2			1	2			4	2		3	2				5	5		5	76	
3	1			1	1		2	1					2	1	1	1	1				2	6	3	1	12		77

CAUSES OF DEATH.

47

by counties, during the year 1900. (Stillbirths included.)

to Keweenaw.

Chippewa.	Clare.	Clinton.	Crawford.	Delta.	Dickinson.	Eaton.	Emmet.	Genesee.	Gladwin.	Gogebic.	Gd. Traverse.	Gratiot.	Hillsdale.	Houghton.	Huron.	Ingham.	Ionia.	Iosco.	Iron.	Isabella.	Jackson.	Kalamazoo.	Kalkaska.	Kent.	Keweenaw.	Classification No.
				1	1			1				1		2			1			2		1	1	1	2	78
		1		1	1	1	1	1							1	1			1					3		79
						1		1					1	2		1	1	2		2		2		6		80
8	3	1	7	1	6	12	15	1		4	7	7	13	17	4	9	8	2		13	8	16	4	39	1	81
29	13	26	1	56	31	22	33	26	4	41	22	36	13	132	35	32	26	17	7	26	23	28	10	71	3	82
4	2	6		2	1	8	2	9	1	6	4	8	11	6	5	12	6		1	3	7	11	2	23		83
1		5	2	3		11	1	8		1	3	1	1	3		5	4			2	6	21	1	4		84
		4		1		3	1	6	1	2	1	3	5	8	2	4	5	2		1	3	4		16		86
		3				1	1	1		1		1		4	1		3			2	3	3		6		85, 87
																						1				88
4	1			2		3	2	3			4		3	5	2	6	2			1	1	6	1	8	1	90
1	1	5		5	1	8		15	2		3	3	6	6	2	7	9		2	5	10	15	4	22		89, 91, 92
		2		1	3	2	2	2	2	1	7	4	3	6	4	8	4	3			12	6	1	24	1	93
																1				1						94
2	1	3		5		2		5		1	2	2	1	11	3	2	3			2	2	5		9		95
2	3	2				2	1	3			3	1		13	6	2	2			1	4	1		15		96
6	3	8		3	5	8	2	17		4	7	17	17	14	8	20	13	2	1	6	17	18	1	57		97
		3		1	1	1	2	1					3		3	2	2			1	5	6	1	7		98-100
													1											1		101
		1			1	3	1	8			2	3	7	6	1	1	3	1		2	5	4		12		102
		1				2		1					1		1	1					3			6		103-106
											1											4		4		111
				1												2	1							2		{ 109, 110, 112 113
					1						1		1	2		1	1				1	3				{ 107, 108, 114, 115
					1	1		3			1			4		1	1			2	1	2		3		

VITAL STATISTICS OF MICHIGAN, 1900.

TABLE IV.—Continued.—Causes of death in Michigan.

Classification No.	Causes of death, 1900.	Counties—Alcona																
		State.	Alcona.	Alger.	Allegan.	Alpena.	Antrim.	Arenac.	Baraga.	Barry.	Bay.	Benzie.	Berrien.	Branch.	Calhoun.	Cass.	Charlevoix.	Cheboygan.
	VIII. PUERPERAL DISEASES.																	
116-118, } 123, 124 } 119, } 120, 122 }	Accidents of pregnancy.....	118	1	1	2					2		5	3	2	1	2		
	Puerperal septicemia.....	249	1	1	3	3			1	5	5	7	5	8	1	2	3	
121	Puerperal albuminuria.....	85		1	1	2	1		1	4		1		1	1	1		
	IX. DISEASES OF THE SKIN AND CELLULAR TISSUE.																	
125	Erysipelas.....	102				1				4		1	1	1			1	
126	Gangrene.....	104		1					1	1		2	2	2				1
127	Anthrax.....																	
128	Phlegmon, acute abscess.....	63							1	2		1	1	1	2	1		
129	Other diseases of the skin....	27								1				1				
	X. DISEASES OF THE LOCO- MOTOR SYSTEM.																	
130	Pott's disease.....	12													1			
131	Chronic or cold abscess.....																	
133	White swellings.....	2																
132, } 134-136 }	Other diseases of locomotor system.....	43		1		1			2	1				1	1			
	XI. MALFORMATIONS.																	
137	Malformations.....	206	1	4	3	2	2		2	1	2	5	2	6	5	1	3	
	XII. DISEASES OF INFANCY.																	
138a	Congenital debility.....	784	1	4	6	8	1		3	19	1	6	10	4	3	3	5	
138b	Premature birth.....	620		5	9	3	2	1	3	23		12	6	9	1	1	6	
139	Want of care.....																	
140	Other diseases of infancy....	37		2						2				1				
	XIII. DISEASES OF OLD AGE.																	
141	Senile debility.....	674		15	5	5	1		5	11	3	12	11	8	2	6	4	
	XIV. VIOLENCE.																	
	A. Suicide—																	
142a	Poison.....	57				1				2	1		1	2	1			
142b	Asphyxia.....	1																
142c	Strangulation.....	58		3					1				1	1				
142d	Drowning.....	13										2						
142e	Firearms.....	54		2								1		1		1	1	
142f	Cutting instruments.....	11										1						
142g	Fall from height.....																	
142h	Crushing.....																	
142i	Other methods.....	17								1				4				

CAUSES OF DEATH.

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by counties, during the year 1900. (Stillbirths included.)

to Keweenaw.

Chippewa.	Clare.	Clinton.	Crawford.	Delta.	Dickinson.	Eaton.	Emmet.	Genesee.	Gladwin.	Gogebic.	Gd. Traverse.	Gratiot.	Hilldale.	Houghton.	Huron.	Ingham.	Ionia.	Iosco.	Iron.	Isabella.	Jackson.	Kalamazoo.	Kalamazoo.	Kent.	Keweenaw.	Classification No.
3	1				1	1	1	1	1	1	2	2	4	4	3	2			1	2	3	1	3		{ 116-118, 123, 124	
2	1	5	1	2	1	3	1	2	1	5	1	5	1	3	6	5		1	2	3	3	1	12		{ 119, 120, 122	
1		1		1	1	4				3	2	2	1	4	1	1	1			2	1		4		121	
				2	3	2	1	2		1		1	1	8		1	1	1		1	2	1		6	125	
	3				1	1	1	1		1		3	2	1	2	1				3	1	1	2	7	126	
																									127	
1					1	1	2						1	2	1		6				2	1		4	128	
									1	1			1					1		1	1	2		3	129	
													1									2			130	
																									131	
																									133	
	1	1		2	1	1										1			1					3	2 { 132, 134-136	
2	1		5	2	1	1	3	2	2	2	2	2	1	3	4	1			1	1	3	2	1	11	1	137
2	4	3	14	9	1	2	9	1	11	7	5	2	45	11	12	9	3	4	8	11	6	4	45			138a
3	2	6	8	11	4	2	6	4	5	7	10	2	18	2	5	5	6	1	3	7	13	2	47	2		138b
																										139
1				2										2		1				2		1		2	1	140
5	6	1	1	12	4	19	1	1	4	8	9	4	14	11	10	2	1	11	9	9	9	1	41			141
										1			1		1	1	1				1	3		8		142a
																					1					142b
	1											2		1		1	2				1	3		1		142c
																	1							2		142d
				1													1	1				4	2		3	142e
																			1							142f
																										142g
																										142h
														1							2				1	142i

TABLE IV.—Continued.—Causes of death in Michigan,

Classification No.	Causes of death, 1900.	Counties—Alcona													
		State.	Alcona.	Alger.	Allegan.	Alpena.	Antrim.	Arenac.	Baraga.	Barry.	Bay.	Benzie.	Berrien.	Branch.	Calhoun.
143	<i>B. Accidents—</i> Fractures	200		4	1						5		8	5	6
144	Dislocations	18												1	
145a	Gunshot	62		1	2					2			2	1	1
145b	Lightning	22		1											
145c	Mining accidents	72									1				
145d	Railroad accidents	218	1	2	2	3	2	1			4	1	4	2	5
145e	Vehicles and horses	61	1	3	1	1	2				3		2		
145f	Electric railway accidents	20													
146a	Fire (burn)	111		1	2	1	1			1	5		2	2	2
146b	Hot liquid (scald)	23													
146c	Corrosive substances														
147a	Sunstroke	32										1	2	1	1
147b	Freezing	8				1	1						1		
148	Accidental drowning	256	1	2	2	5	3	1	3		9	2	7	1	4
149	Starving														
150	Noxious gases	9									1				
151	Other accidental poisons	74		1	1	1			1	1	1		2		2
152a	Other accidents	554	2	1	6	5	4	2			20	4	9	4	5
152b	<i>C. Homicide—</i> Homicide	15									1	1			
XV. CAUSES ILL-DEFINED.															
153	Exhaustion, cachexia debility	368		1	4	3				6	4		1	6	18
154	Fever, inflammation	31			2	1						1			
155a	Dropsy	184	1		4	1	1			1	8		4	5	
155b	Heart failure	367	1		11	2	1			2	10	2	10	5	14
156	Asphyxia, cyanosis	17	1			1									
157	Sudden death	1													
158	Abdominal tumor	21									1				
159	Other tumors	25								1				1	1
161	Unknown or not specified causes	421	1	6	6	11	6	3			3	4	4	2	1

CAUSES OF DEATH.

51

by counties, during the year 1900. (Stillbirths included.)

to Keweenaw.

Chippewa.	Clare.	Clinton.	Crawford.	Delta.	Dickinson.	Eaton.	Emmet.	Genesee.	Gladwin.	Gogebic.	Gd. Traverse.	Gratiot.	Hillsdale.	Houghton.	Huron.	Ingham.	Ionia.	Iosco.	Iron.	Isabella.	Jackson.	Kalamazoo.	Kalkaska.	Kent.	Keweenaw.	Classification No.
1	2	2	2	2	1	1	3				2	1	4	14	2	4		2	1	2	4	3		13		143
			2	1	1								1	1	1	1					1			2		144
1	2		1	2	2				1	1			1		1	3			1	2	1	2		2	1	145a
												1				2										145b
					8					16				27					2							145c
2	2		1	17	5	3	3	9	1	3		2	3	3			3	1		2	1	5		12		145d
1	1		1	1	3		3			1	1	1	1		2	1	1			1				2		145e
																									*	145f
4	1	1		1	2		1	1		1		2	2	5	1	1	2	2			2	2	1	7		146a
			2		1																			2		146b
																										146c
1	1		1				1							1							1			3		147a
																										147b
6	1	1	1	3	3		7	2	1	2	2	3	3	8		4	2	2	1	2	4	1		10		148
																						1	1			149
		1	1				1			1			1	2		2	2		1	2	1	1	1	7		151
13	1	4		14	6	1	9	7	2	5	7	5	10	19	5	6	6	3	7	7	5	15	4	21	3	152a
				1								1									2	1				152b
2		7		4	1	1	3	9		1	1	5	3	3	2	1	6	3		2	16	10	1	28		153
			1												1		1							3		154
		1		3		1		2	1	1		2	2		8	2	11	3	1	5	1	4	2	4		155a
14	1	4		6		9	1	12		3	2	5	4	11	4	13	9	1	1	6	9	7	1	14		155b
4	1			1		1	1																			156
																										157
								1					1			2					2			1		158
																		1		1	1		1			159
10	1			30	7	5	4	5	3	27		4	1	14	19	6	1	2	3	7	2	2		6		161

by counties, during the year 1900. (Stillbirths included.)

to Wexford.																								Classification No.
Montmorency.	Muskegon.	Newaygo.	Oakland.	Oceana.	Ogemaw.	Ontonagon.	Oscoda.	Oscoda.	Otsego.	Ottawa.	Presque Isle.	Roscommon.	Saginaw.	St. Clair.	St. Joseph.	Sanilac.	Schoolcraft.	Shiawassee.	Tuscola.	Van Buren.	Washtenaw.	Wayne.	Wexford.	
485	217	635	221	84	38	255	6	75	527	52	14	1,095	765	327	413	109	445	491	447	613	5,775	289		
19	2	5	8	2	1	6		2	29	1		57	41	4	4	5	6	18	3	5	361	10		
	9	9	12	6	2								26	14	3	17	4	10	7	6	9	112	8	
	2				1				4				1		1			1		1	4			
					1															1	4			
																					3			
	4	5	5	1	2				1	1	1	1	9	3	3	6		9	5	8	68	8		
	1		1	2	1		1	3	2				3	2		1	5	4	8	3	1	23	4	
	1	1			1	2			2				6	1	1	4		10	2	6		27	1	
1	6		5		2		3		2				16	8		17	4	14	6	3	3	80	1	
			1					1	3				10	3		1	1	1	3	1		9		
		2							1				6			1		2	1			5		
	12	8	13	7	2		2		1	13			11	11	9	11	5	11	8	16	4	37	4	
	1														1						3			
							1															2		
																					1			
	3	1	1	2			1		1	1			3	4	1			1	4	2	3	22		
	1																							
																					1			
		3	5	1			2			3			12	4	1	5		1	2	7	1	9	4	

TABLE IV.—Continued.—Causes of death in Michigan,

Classification No.	Causes of death, 1900.	Counties—Lake																
		Lake.	Lapeer.	Leelanau.	Lenawee.	Livingston.	Luce.	Mackinac.	Macomb.	Manistee.	Marquette.	Mason.	Meosta.	Menominee.	Midland.	Missaukee.	Monroe.	Montcalm.
22a	<i>Tuberculosis—</i> of the lungs.....	4	22	11	43	22	.....	11	33	24	44	22	15	18	13	3	30	22
22b	of the meninges.....	.....	2	.....	3	.....	.....	2	.....	1	6	2	.....	1	.....	.....	2	.....
22c	of the peritoneum.....	.....	3	1	4	.....	.....	.....	.....	.....	2	4	2	.....	.....	.....	1	3
22d	of the skin.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22e	of other organs.....	1	.....	1	.....	.....	.....	.....	2	.....	1	.....	1	1	.....	.....	.....	.....
22f	general.....	.....	2	.....	2	1	.....	1	5	2	2	.....	1	1	1	.....	3	1
23	Scrofula.....	.....	1	.....	1	.....	.....	.....	1	.....	.....	2	.....	.....	.....	.....	.....	.....
24	Syphilis.....	.....	1	.....	1	1	.....	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....
25a	<i>Cancer—</i> of the mouth.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	1
25b	of the stomach or liver.....	1	5	5	15	3	.....	.....	10	7	8	3	1	3	.....	1	7	7
25c	of the intestines or rectum.....	.....	3	.....	6	1	.....	.....	1	.....	1	.....	.....	.....	.....	.....	1	1
25d	of the uterus.....	.....	1	1	2	1	.....	.....	.....	2	2	1	5	.....	.....	.....	2	7
25e	of the breast.....	.....	.....	.....	3	2	.....	.....	3	.....	3	1	1	.....	.....	.....	.....	1
25f	of the skin.....	.....	1	.....	3	3	.....	.....	2	.....	.....	1	1	2	1	.....	1	2
25g	of other organs.....	2	1	1	10	3	.....	.....	2	2	3	2	1	2	2	.....	4	2
26-27	Rheumatism.....	.....	3	2	6	2	.....	.....	3	5	2	.....	3	.....	1	.....	7	4
28	Diabetes.....	.....	1	.....	5	4	.....	.....	2	.....	3	1	1	2	1	.....	5	5
29	Exophthalmic goitre.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....
30	Addison's disease.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
31	Leukemia.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	1	.....	.....	2	.....
32	Anemia, chlorosis.....	1	2	.....	1	.....	.....	.....	5	.....	.....	.....	1	3	1	1	1	4
33	Other general diseases.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	2	.....	.....	.....
34	Alcoholism.....	1	.....	.....	.....	2	.....	.....	2	.....	1	3	.....	1	.....	.....	.....	1
35-37	Chronic poisonings.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
LOCAL DISEASES.																		
III. DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SENSE.																		
38	Encephalitis.....	.....	.....	.....	.....	1	.....	1	1	.....	3	.....	.....	2	1	1	5	.....
39a	Simple meningitis.....	.....	2	2	7	1	.....	1	7	2	9	3	8	10	4	1	5	8
39b	Cerebrospinal meningitis.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
42	Cerebral congestion and hemorrhage.....	20	4	29	13	.....	.....	1	17	11	15	7	6	3	3	3	30	30
43	Cerebral softening.....	.....	3	.....	3	1	.....	.....	2	.....	1	2	1	.....	.....	.....	4	.....
44	Paralysis.....	4	5	3	24	9	.....	1	14	7	2	2	4	4	1	3	14	14

CAUSES OF DEATH.

55

by counties, during the year 1900. (Stillbirths included.)

to Wexford.

Montmorency.	Muskegon.	Newaygo.	Oakland.	Oceana.	Ogemaw.	Ontonagon.	Osceola.	Oscoda.	Otsego.	Ottawa.	Presque Isle.	Roscommon.	Saginaw.	St. Clair.	St. Joseph.	Sanilac.	Schoolcraft.	Shiawassee.	Tuscola.	Van Buren.	Washtenaw.	Wayne.	Wexford.	Classification No.
28	10	42	16	6	1	13				30	3	2	73	41	19	26	12	34	26	29	39	337	12	22a
5			1							1	1		6	6		2	1	2	2	1	3	19		22b
	2	2	1				1			2			6	3	1	1			1	3	4	21		22c
		1																					1	22d
2	1									1			1	2	3	1					2	8		22e
1	2	7					1			1			5	4		1		2	2	1	4	26	1	22f
													1		1				1			2	2	23
													2						1			32		24
		2								1			1	2	1	1		3	1	3	1	5		25a
6	7	8	3		1	5				10			17	13	7	5	2	11	9	12	15	101	3	25b
3		5	3			2							3	3	1	1		1	1	3	7	23	1	25c
1	2	4	3			2			1	6			8	4	1	1		3	5	4	4	45		25d
	3	3	3			1							2	2	1	3		4		1	4	15	1	25e
		4				1				2			5	6				1		1	4	10		25f
1	2	10			1	1				4			9	4	3	6		3	7	6	14	45	1	25g
7	4	5	1			3				6			10	5	4	2		3	2	6	10	22	2	26-27
2	4	3	2			1			1	5			3	1	5	7		3	5	7	6	26	1	28
		1											1	1							1	4		29
		2												2					1			1		30
1										1			1	4		2		2		1	3	4		31
4	2	4				2			1	6			9	7	1	3		2	1	2	2	31	4	32
																			1		1		1	33
1			1								1			2				1			3	16		34
1	1	1																	1	1		4		35-37
3	1	2	1							1			6	2	1	4			1		1	7	2	38
4	3	6	3			3			2	11	1		16	9	6	4	1	7	10	6	8	119	5	39a
																								39b
33	5	33	4	2	1	7			4	24	2	1	36	33	12	17	4	12	18	17	29	174	7	42
		1					2			2			2	2	1				1	1	5	5		43
11	8	19	4	2		7			1	9	1		22	16	22	11		17	9	17	15	106	3	44

TABLE IV.—Continued.—Causes of death in Michigan,

Classification No.	Causes of death, 1900.	Counties—Lake																
		Lake.	Lapeer.	Leelanau.	Lenawee.	Livingston.	Luce.	Mackinac.	Macomb.	Manistee.	Marquette.	Mason.	Mecosta.	Menominee.	Midland.	Missaukee.	Monroe.	Montcalm.
45	General paralysis of insane..	2	2						2		1						2	1
46	Other forms of insanity.....			2	1									1			1	
47	Epilepsy	1	2	2	1	3					1	1	2		2			
48	Convulsions								1					1				
49	Convulsions of infants.....		2	3	3	1	1	1	5	10	12	5	1	9	2		2	4
50	Tetanus									1								1
40-41, 51-54	Other nervous diseases.....	2	4	2	12	8	1	2	4	5	2	5	3	2	6	2	6	5
IV. DISEASES OF THE CIRCULATORY SYSTEM.																		
55	Pericarditis	1	1						3			2	1				4	3
56	Endocarditis.....										4	1		1	1		3	
57	Organic heart disease	2	35	11	68	26	1	4	38	14	27	16	24	14	18	2	39	26
58	Angina pectoris.....		3	1	8	2			3	1			2		1	1	2	1
59	Diseases of the arteries				5					1	1	2						
60	Embolism.....		1		1			1	1		1						2	
61	Varices, hemorrhoids.....																	
62	Phlebitis.....				1					1								
63	Lymphangitis.....							1										
64	Other lymphatic diseases											1						
65	Hemorrhage.....			1				1		1		1						1
66	Other circulatory diseases																	2
V. DISEASES OF THE RESPIRATORY SYSTEM.																		
67	Diseases of the nose.....		2		1													
68	Diseases of larynx and thyroid		1	1							1			1	1			
69	Acute bronchitis.....		1	1	3	4	2	2	8	2	37	3	2	5	2	1		6
70	Chronic bronchitis.....		4	1	7	4			4	1	4	3	6	1	1		3	3
71	Broncho-pneumonia.....	1			4	2	1	1	5		14	2	3	7	1	1	2	5
72	Pneumonia.....	5	21	9	48	20	1	5	37	42	26	16	20	22	15	12	27	27
73	Pleurisy.....		3	1	5	2		1	6	3	5		1	1				3
74	Congestion of lungs.....	1	5		5	2		2	2	5	1	2	1		1	1		4
75	Gangrene of lungs									1								
76	Asthma and emphysema.....	1		1					2	1	2	1		4	1		1	
77	Other respiratory diseases	1	2	1	1	1	1	1		1	4	3	1	3	1	1	1	2

CAUSES OF DEATH.

57

by counties, during the year 1900. (Stillbirths included.)

to Wexford.																								Classification No.	
Montmorency.	Muskegon.	Newaygo.	Oakland.	Oceana.	Ogemaw.	Ontonagon.	Osceola.	Oscoda.	Otsego.	Ottawa.	Presque Isle.	Roscommon.	Saginaw.	St. Clair.	St. Joseph.	Sanilac.	Schoolcraft.	Shiawassee.	Tuscola.	Van Buren.	Washtenaw.	Wayne.	Wexford.		
..	3	11	..	..	..	..	..	..	1	..	..	..	..	2	2	1	2	..	3	1	2	1	22	2	45
..	8	..	..	..	..	..	..	..	..	1	..	..	..	1	1	..	..	1	2	..	2	22	..	46	
..	2	1	3	1	1	..	1	..	3	..	..	..	..	1	1	..	1	..	3	6	4	4	22	..	47
..	..	..	..	..	..	..	1	..	1	..	..	..	..	2	..	..	1	..	..	..	1	2	..	48	
..	10	1	2	1	3	..	1	..	3	9	1	..	20	10	4	5	2	2	6	1	6	184	2	49	
..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	6	..	50	
..	6	5	7	1	2	..	6	..	2	14	..	..	9	9	6	6	2	5	4	7	7	48	1	{ 40-41, 51-54	
..	1	4	..	..	..	..	..	..	..	2	..	..	2	4	1	..	..	1	2	1	3	15	3	55	
..	1	..	..	..	..	..	2	..	..	..	..	..	1	9	2	1	..	..	1	3	2	29	..	56	
2	27	13	54	25	5	..	12	..	4	38	2	1	92	58	37	28	2	32	38	63	63	321	21	57	
..	6	..	..	..	..	..	3	..	5	..	2	2	2	1	1	3	..	4	..	6	3	32	4	58	
..	6	5	1	2	..	..	..	..	4	..	..	..	1	6	2	1	..	2	2	1	5	11	..	59	
..	1	2	..	..	..	..	1	..	..	..	..	..	..	2	1	..	..	1	..	..	..	4	..	60	
..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	61	
..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	1	..	..	3	..	62	
..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	63	
..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	2	..	64	
..	2	..	..	..	..	..	..	..	1	..	..	..	1	..	..	1	1	..	2	2	..	8	..	65	
..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	1	..	66	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	67	
..	1	1	..	..	..	..	..	..	1	..	..	..	3	2	..	..	1	3	2	..	1	11	1	68	
..	2	1	2	2	2	4	2	..	7	..	..	..	8	4	3	3	4	6	9	1	5	124	9	69	
..	3	2	8	3	1	..	3	..	8	..	..	..	17	6	7	3	..	5	7	1	10	56	1	70	
..	5	5	1	..	..	1	3	..	1	5	..	..	11	1	..	3	..	4	8	4	5	112	1	71	
3	41	13	49	16	2	2	22	..	4	19	3	2	80	45	18	31	7	24	29	22	24	389	12	72	
..	3	2	5	..	..	..	1	..	4	..	..	..	5	5	1	3	1	1	1	2	1	26	..	73	
..	3	1	3	2	1	1	..	..	8	..	..	..	6	7	4	3	..	1	..	4	4	17	3	74	
..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	2	..	..	75	
..	2	3	1	1	..	..	1	1	..	1	..	..	8	4	3	1	..	1	3	1	..	47	..	76	
..	3	1	1	1	..	..	1	..	5	..	..	..	2	1	5	1	1	2	3	2	2	17	3	77	

TABLE IV.—Continued.—Causes of death in Michigan.

CAUSES OF DEATH.

by counties, during the year 1900. (Stillbirths included.)

to Wexford.

to Wexford.																								Classification No.
Montmorency.	Muskegon.	Newaygo.	Oakland.	Oceana.	Ogemaw.	Ontonagon.	Oseola.	Oscoda.	Otsego.	Ottawa.	Presque Isle.	Roscommon.	Saginaw.	St. Clair.	St. Joseph.	Sanilac.	Schoolcraft.	Shiawassee.	Tuscola.	Van Buren.	Washtenaw.	Wayne.	Wexford.	
1	3	1								1			1						1			9		78
1	1	1								2			2	1				2	2	1	1	4		79
1	1													5	1	1		2			1	9		80
1	1	3	9	3	2	2	2			12	1		15	12	7	5		14	8	8	11	79	10	81
4	40	9	24	14	9	9	24		11	17	3	1	65	54	15	27	17	35	33	18	25	407	33	82
	6	3	18	2			3			9		2	19	13	3	7	2	10	15	6	6	52	1	83
	6	4	11	3	1	1	2			1			5	2	1	1	1	4	4	3	9	18	2	84
	2	4	6	2	1		1			5			10	7		2	1	5	1	1	4	45	1	86
	3	2	1						1	1	1		3	3	5	1			3	3	1	10	2	85, 87
																		1			1			88
1	4	4	4	2	1		1			5	1		6	4	3	2		2	1	1	1	33		90
	5	3	9	1	2		4		2	6	1	1	13	14	5	7		5	6	11	5	47	1	89, 91, 92
	3	3	7	3	1		4		1	4			13	10	4	3		4	4		8	77		93
		1											1	1								1		94
		4	1			1	2			6			9	6	1	1		2	3		7	46	1	95
	2	1	2		1	1	1			3			5	1	1	2	1	2	5	2	3	56	1	96
	19	4	17	5	4	2	7		1	12	1		36	26	11	10	2	12	12	6	24	136	3	97
		3	2	1			1						6	2	3	1		1	2	2	1	16		98-100
										1			1											101
	1	2	9	2			2			2			7	4	1	3		5	1	5	7	17		102
		1	2			1							4	1		1			1	1	2	8		103-106
		1		1									3	2				2		2	2	6		111
		2					1											1	1			3		{ 109, 110, 112
		1								2			5	2							1	3		113
	1	1								1			8	1	1			1		1	2	18	1	{ 107, 108, 114, 115

CAUSES OF DEATH.

61

by counties, during the year 1900. (Stillbirths included.)

to Wexford.																								Classification No.
Montmorency.	Muskegon.	Newaygo.	Oakland.	Oceana.	Ogemaw.	Ontonagon.	Osceola.	Oscoda.	Otsego.	Ottawa.	Presque Isle.	Roscommon.	Saginaw.	St. Clair.	St. Joseph.	Sanilac.	Schoolcraft.	Shiawassee.	Tuscola.	Van Buren.	Washtenaw.	Wayne.	Wexford.	
1	2	1					1			3	1		1	3		4	2	1	1	1	5	18	1	{ 116-118, 123, 124
3	2	5	1				2			4			4	4	1	5		1	4	1	5	48	2	{ 119, 120, 122
1	1				1		1						3	1	1	2		1	3			14	1	121
2							3			4			3		1	1			1		2	24	1	125
1	1	5	1				1		1	2			3	4	3	1				2	5	14		126
																								127
1	2													3		1			3	1	1	7	1	128
1										1					1			1				5	1	129
							1			1												3		130
																								131
										1												1		133
1	1	1					1			1			1	1					1	1		5	1	{ 132, 134-136
5	1	2	5		1		2		1	2			1	2	1	5		2	8		4	35	5	137
8	2	6	3			1	5		1	8			25	8	3	2	3	5	6	5	7	247	8	138a
1	15	1	5	4	1		6		1	11			19	16	4	6	1	2	12	3	8	152	6	138b
																								139
1	3				2									1					1	1		7		140
1	10	6	10	4	2	1	13	1	1	16	5		21	17	2	4		3	7	6	26	136	4	141
		3	1				1						3	1		1				2		12		142a
																								142b
	1	2				1				1			3		3				2	2	2	10	1	142c
	1						1												1					142d
1	1	1								1			1		3			3		2	1	9	1	142e
1					1					1												3		142f
																								142g
																								142h
										1									1	1	1	2		142i

TABLE IV.—Concluded.—Causes of death in Michigan.

CAUSES OF DEATH.

63

by counties, during the year 1900. (Stillbirths included.)

to Wexford.																								Classification No.
Montmorency.	Muskegon.	Newaygo.	Oakland.	Oceana.	Ogemaw.	Ontonagon.	Osceola.	Oscoda.	Otsego.	Ottawa.	Presque Isle.	Rosecommon.	Saginaw.	St. Clair.	St. Joseph.	Sanilac.	Schoolcraft.	Shiawassee.	Tuscola.	Van Buren.	Washtenaw.	Wayne.	Wexford.	
..	2	1	8	..	..	..	2	..	..	4	..	..	8	..	1	..	..	2	3	2	2	26	2	143
..	..	1	..	1	1	..	3	..	..	..	1	..	2	2	1	2	..	1	1	..	..	4	..	144
..	..	..	2	..	..	..	..	..	..	2	..	..	..	3	1	1	..	..	..	..	..	2	..	145a
..	..	..	..	..	..	..	..	..	..	..	..	..	5	..	..	..	..	..	..	..	..	1	..	145b
..	3	..	3	..	1	..	..	..	..	3	..	..	5	10	5	..	1	2	..	..	5	36	2	145c
..	1	2	..	..	..	..	1	..	..	1	..	..	1	1	1	2	..	1	..	1	5	3	..	145d
..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	15	..	145e
..	4	2	..	..	..	..	..	..	..	1	..	..	3	4	1	2	..	1	..	4	1	16	3	145f
..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	2	..	..	..	..	7	..	..	146a
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	146b
..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	2	..	..	..	11	..	..	146c
..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	1	..	147a
..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	1	..	147b
2	11	1	4	2	1	..	..	..	..	7	..	..	8	19	..	1	1	1	..	2	4	33	5	148
..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	149
..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	..	..	150
1	..	..	..	..	..	..	2	..	1	..	..	..	4	1	2	2	..	..	..	..	3	15	1	151
2	6	6	11	5	1	2	2	..	3	5	1	..	10	10	5	3	2	10	8	7	13	77	3	152a
..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	1	..	1	..	1	..	1	..	..	152b
..	4	2	16	5	..	..	5	..	..	8	1	..	15	10	6	14	1	5	6	6	4	30	2	153
..	2	..	..	..	..	..	1	..	..	..	1	..	2	2	..	..	..	..	..	..	7	1	..	154
..	5	..	2	3	..	..	3	1	..	5	1	1	6	4	4	1	1	3	2	1	3	31	1	155a
..	6	3	7	3	2	..	2	..	..	7	..	..	5	10	2	5	3	13	11	16	5	19	2	155b
..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	156
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	157
..	1	..	..	..	..	..	..	..	..	..	..	..	..	2	..	1	1	1	..	1	..	1	1	158
..	1	..	1	1	..	..	..	..	..	4	..	..	2	..	..	1	..	..	..	..	1	2	..	159
..	6	3	7	7	1	..	3	1	3	3	16	..	12	7	2	9	2	1	2	6	5	20	6	161

VITAL STATISTICS OF MICHIGAN, 1900.

TABLE V.—Deaths in Michigan cities, by months and sex, during the year 1900. (Stillbirths included.)

Cities.	Sex.	Year, 1900.	Months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
ALL CITIES.	Total...	14,577	1,151	1,163	1,329	1,377	1,245	977	1,241	1,374	1,343	1,142	1,091	1,144
	Males...	7,623	609	599	711	701	641	543	671	750	675	596	542	594
	Fem...	6,946	550	562	617	675	603	434	570	623	667	546	549	550
	Unk...	8	1	2	1	1	1			1	1			
Adrian.....	Total...	159	21	15	13	14	15	9	14	9	15	13	7	14
	Males...	81	14	6	5	8	9	5	7	6	9	6	2	4
	Fem...	78	7	9	8	6	6	4	7	3	6	7	5	10
Albion.....	Total...	65	6	7	6	4	8	4	2	8	3	5	9	3
	Males...	32		4	3	3	4	2		4	2	1	7	2
	Fem...	33	6	3	3	1	4	2	2	4	1	4	2	1
Alpena.....	Total...	207	16	18	17	13	19	20	22	37	11	11	17	8
	Males...	103	10	8	10	4	8	11	12	18	6	5	9	2
	Fem...	104	6	10	7	9	11	9	10	19	5	6	8	4
Ann Arbor...	Total...	198	15	17	17	18	13	13	21	13	15	22	19	15
	Males...	91	10	6	10	9	5	8	7	10	7	8	6	5
	Fem...	107	5	11	7	9	8	5	14	3	8	14	13	10
Au Sable....	Total...	14	2	1		2	1		1	4	2		1	
	Males...	7	1	1					1	3			1	
	Fem...	7	1			2	1			1	2			
Battle Creek.	Total...	271	18	20	25	28	18	27	26	17	23	17	22	30
	Males...	148	5	13	13	9	14	18	17	9	14	9	11	16
	Fem...	123	13	7	12	19	4	9	9	8	9	8	11	14
Bay City....	Total...	382	35	36	37	31	29	26	21	34	34	30	24	25
	Males...	199	20	18	15	18	16	13	13	20	17	11	20	18
	Fem...	183	15	18	22	13	13	13	8	14	17	19	14	7
Belding.....	Total...	45	2	2	5	2	6	1	3	7	1	8	1	7
	Males...	17	1		3	2	2			3		2	1	3
	Fem...	28	1	2	2		4	1	3	4	1	6		4
Benton Harbor....	Total...	73	10	10	5	2	6	8	7	7	4	5	3	6
	Males...	38	5	4	1	1	4	5	2	4	2	2	3	5
	Fem...	35	5	6	4	1	2	3	5	3	2	3		1
Bessemer....	Total...	71	7	7	6	1	6	4	6	8	12	2	6	6
	Males...	40	5	3	3		4	2	4	6	7		3	3
	Fem...	31	2	4	3	1	2	2	2	2	5	2	3	3
Big Rapids...	Total...	88	8	6	7	8	12	9	5	8	5	11	4	5
	Males...	48	3	3	2	5	8	2	4	5	3	6	3	4
	Fem...	40	5	3	5	3	4	7	1	3	2	5	1	1
Cadillac.....	Total...	84	6	3	4	10	10	5	6	11	8	10	6	5
	Males...	50	4	3	4	6	7	4	2	7	4	5	2	2
	Fem...	34	2			4	3	1	4	4	4	5	4	
Charlotte....	Total...	68	4	3	8	5	5	4	4	5	10	4	9	7
	Males...	47	2	2	4	5	5	3	3	4	8	2	6	3
	Fem...	21	2	1	4			1	1	1	2	2	3	4
Cheboygan...	Total...	67	4	3	8	3	7	3	2	6	5	11	7	8
	Males...	42	3	3	6	3	4	2		5	2	4	5	5
	Fem...	25	1		2		3	1	2	1	3	7	2	3
Clare.....	Total...	18	3	1		2	3	1		2	2	1	2	1
	Males...	10	2	1		1		1		2	2			1
	Fem...	8	1			1	3					1	2	
Coldwater....	Total...	94	9	6	6	8	12	4	8	11	10	10	6	4
	Males...	48	3	1	4	4	5	2	3	6	8	6	4	4
	Fem...	46	6	5	2	4	7	2	5	5	2	4	2	2
Corunna....	Total...	20		1	3	2	2	2		1	4	7	4	4
	Males...	10		1		1		2		1	2	1	3	
	Fem...	10			3	1	2				2	2	1	4
Crystal Falls.	Total...	25	1	7	1	1								
	Males...	13	1	3	1	1								
	Fem...	12		4										
Detroit.....	Total...	4,711	345	373	449	466	430	377	434	474	463	404	384	424
	Males...	2,390	182	189	231	231	204	177	204	219	214	182	174	194
	Fem...	2,320	163	183	218	235	226	200	230	255	249	222	210	230
	Unk...	1		1										

DEATHS IN CITIES.

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TABLE V.—Continued.—Deaths in Michigan cities, by months and sex, during the year 1900. (Stillbirths included.)

Cities.	Sex.	Year, 1900.	Months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Dowagiac....	Total...	77	8	5	6	15	5	1	1	3	11	6	12	4
	Males..	36	4	3	3	9	3	.....	.....	2	6	2	4	.....
	Fem... 41	4	2	3	6	2	1	1	1	5	4	8	4	.....
East Tawas....	Total...	13	1	4	.....	1	.....	2	1	2	.....	.....	.....	2
	Males..	11	1	3	.....	.....	.....	2	1	2	.....	.....	.....	2
	Fem... 2	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eaton Rapids	Total...	34	5	1	4	2	1	2	1	3	3	1	8	3
	Males..	17	4	1	3	1	.....	1	1	1	2	1	1	1
	Fem... 17	1	.....	1	1	1	1	.....	2	1	.....	7	2	.....
Escanaba....	Total...	217	1	21	13	21	23	16	18	36	21	13	25	9
	Males..	139	1	17	6	15	15	8	12	23	17	5	16	4
	Fem... 78	.....	4	7	6	8	8	6	13	4	8	9	5	.....
Flint.....	Total...	154	13	17	11	13	17	4	4	17	13	15	15	15
	Males..	66	6	7	4	7	6	2	1	9	4	7	4	9
	Fem... 88	7	10	7	6	11	2	3	8	9	8	11	6	.....
Gladstone....	Total...	43	3	2	4	5	.....	4	1	8	8	6	1	1
	Males..	20	2	1	2	4	.....	1	.....	5	2	2	1	.....
	Fem... 23	1	1	2	1	.....	3	1	3	6	4	.....	1	.....
Gladwin.....	Total...	7	.....	.....	2	1	.....	.....	1	2	1	.....	.....	.....
	Males..	4	.....	.....	2	.....	.....	.....	.....	1	1	.....	.....	.....
	Fem... 3	.....	.....	.....	.....	1	.....	.....	1	1	.....	.....	.....	.....
Grand Haven	Total..	51	5	2	10	9	2	5	5	2	3	4	1	3
	Males..	32	2	1	6	7	1	1	4	2	2	4	.....	2
	Fem... 19	3	1	4	2	1	4	1	.....	1	.....	1	1	.....
Grand Ledge	Total..	22	2	4	1	1	2	3	2	.....	3	.....	2	2
	Males..	10	2	2	1	.....	.....	1	1	.....	1	.....	1	1
	Fem... 12	.....	2	2	.....	1	2	2	1	.....	2	.....	1	1
Grand Rapids	Total..	1,268	142	106	134	118	99	75	95	98	95	104	103	99
	Males..	643	66	57	70	63	45	40	48	48	38	56	68	44
	Fem... 625	76	49	64	55	54	35	47	50	50	57	48	35	55
Greenville...	Total...	54	6	3	3	8	3	4	4	4	5	6	5	3
	Males..	15	2	1	.....	2	1	1	1	2	1	2	1	1
	Fem... 39	4	2	3	6	2	3	3	2	4	4	4	4	2
Harrison.....	Total...	16	.....	1	.....	4	4	1	2	2	2	.....	.....	.....
	Males..	10	.....	.....	3	3	1	.....	1	1	2	.....	.....	.....
	Fem... 6	.....	1	.....	1	1	.....	2	1	.....	.....	.....	.....	.....
Hastings....	Total...	27	3	5	4	2	3	3	.....	1	1	2	2	1
	Males..	14	1	4	1	1	1	1	.....	1	1	2	.....	1
	Fem... 13	2	1	3	1	2	2	.....	.....	.....	.....	2	.....	.....
Hillsdale....	Total...	60	6	5	6	8	3	3	8	6	3	4	4	4
	Males..	31	2	3	1	4	2	3	4	4	.....	2	3	3
	Fem... 28	4	1	5	4	1	.....	.....	4	2	3	2	1	1
Holland.....	Unk... 1	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....
	Total...	124	12	11	15	6	19	8	6	10	13	8	6	10
	Males..	63	6	2	12	4	9	5	2	7	4	4	2	6
Hudson.....	Fem... 60	6	9	3	2	10	3	4	3	8	4	4	4	4
	Unk... 1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....
Ionia.....	Total...	39	2	1	3	5	5	2	4	1	3	5	5	3
	Males..	15	1	.....	2	.....	2	.....	4	.....	2	3	1	.....
	Fem... 24	1	1	1	5	3	2	.....	1	1	1	2	4	3
Iron Mountain..	Total...	68	11	3	4	5	9	2	4	6	6	12	4	2
	Males..	36	4	2	3	1	5	2	3	2	.....	9	4	1
	Fem... 32	7	1	1	4	4	4	.....	1	4	6	3	.....	1
Ironwood....	Total...	143	9	9	13	7	12	10	12	15	15	18	11	12
	Males..	87	4	4	10	5	5	7	9	11	9	13	5	5
	Fem... 56	5	5	3	2	7	3	3	4	6	5	6	7	.....
Ishpeming...	Total...	170	8	5	11	21	13	7	17	31	19	13	10	15
	Males..	92	5	4	6	10	11	6	5	18	9	6	4	8
	Fem... 78	3	1	5	11	2	1	12	13	10	7	6	7	.....
Jackson.....	Total...	193	18	17	18	22	18	8	24	21	15	16	8	8
	Males..	108	10	10	15	11	6	15	10	9	8	4	4	4
	Fem... 84	8	11	8	6	7	2	9	11	6	8	4	4	.....
Jackson.....	Unk... 1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Total...	327	30	39	25	34	23	22	23	32	31	26	23	19
	Males..	171	12	24	14	14	13	10	14	17	22	11	9	11
	Fem... 156	18	15	11	20	10	12	9	9	15	9	15	14	.....

VITAL STATISTICS OF MICHIGAN, 1900.

TABLE V.—Continued.—Deaths in Michigan cities, by months and sex, during the year 1900. (Stillbirths included.)

Cities.	Sex.	Year. 1900.	Months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Kalamazoo ...	Total...	462	24	26	38	52	46	32	31	36	61	42	40	34
	Males...	238	12	11	23	27	27	20	15	21	32	22	17	11
	Fem...	224	12	15	15	25	19	12	16	15	29	20	23	23
Lansing	Total...	239	23	21	24	27	19	13	15	15	33	13	14	22
	Males...	109	11	7	8	12	9	7	9	10	17	6	3	10
	Fem...	130	12	14	16	15	10	6	6	5	16	7	11	12
Lapeer	Total...	54	5	1	1	5	10	2	3	3	6	6	5	7
	Males...	29	2	1	1	5	5	2	1	1	3	3	2	4
	Fem...	25	3	1	1	1	5	1	2	2	3	3	3	3
Ludington...	Total...	118	9	10	13	11	5	8	8	13	15	10	9	7
	Males...	62	6	5	7	8	3	2	4	7	9	5	2	4
	Fem...	56	3	5	6	3	2	6	4	6	6	5	7	3
Mackinac Island	Total...	12					2	1	1	1	1	1	2	
	Males...	8					1	1	1	1	1	1	2	
	Fem...	4					1	1	1	1	1	1	2	
Manistee	Total...	170	23	19	17	10	14	9	12	18	14	12	11	11
	Males...	94	15	8	9	4	7	8	5	11	5	10	6	6
	Fem...	76	8	11	8	6	7	1	7	7	9	2	5	5
Manistique ..	Total...	78	8	4	5	2	9	2	6	8	13	2	11	8
	Males...	41	4	3	1	1	2	1	4	4	8	1	8	4
	Fem...	37	4	1	4	1	7	1	2	4	5	1	3	4
Marine City..	Total...	77	8	5	8	6	4	5	8	10	7	3	6	7
	Males...	48	4	3	7	4	1	4	8	3	3	2	5	4
	Fem...	29	4	2	1	2	3	1	1	7	4	1	1	3
Marquette ...	Total...	205	18	12	18	13	20	13	18	23	20	18	15	17
	Males...	120	10	5	12	5	13	7	13	13	11	12	8	11
	Fem...	85	8	7	6	8	7	6	5	10	9	6	7	6
Marshall	Total...	42	1	7	5	4	4	4	5	1	3	4	2	2
	Males...	22	1	4	3	2	2	4	3			1	1	1
	Fem...	20		3	2	2	2		2	1	3	3	1	1
Mason	Total...	35	2	1	5	5	5	3	2	2	2	2	3	3
	Males...	18	2	1	3	1	4	2		1	2	1		1
	Fem...	17			2	4	1	1	2	1		1	3	2
Menominee...	Total...	189	17	13	14	21	12	14	14	20	23	14	13	14
	Males...	98	10	6	8	9	4	7	8	7	14	11	6	8
	Fem...	90	7	7	5	12	8	7	6	13	9	3	7	6
Midland	Total...	34	5	4	4	3	2	3		3	3	4		3
	Males...	20	3	1	2	3	1	1		3	1	3		2
	Fem...	14	2	3	2		1	2			2	1		1
Monroe	Total...	72	7	3	6	1	10	2	10	13	7	5	4	4
	Males...	28	2		3		4		6	6	3	1	1	2
	Fem...	44	5	3	3	1	6	2	4	7	4	4	3	2
Mt. Clemens.	Total...	128	6	10	14	14	9	13	18	9	14	5	7	9
	Males...	74	5	6	8	9	6	8	8	4	11	4	2	3
	Fem...	54	1	4	6	5	3	5	10	5	3	1	5	6
Mt. Pleasant.	Total...	41	3	5	4	3	5	3	3	3	5	2	2	3
	Males...	22	3	3	3	3	2	2	2	1	1	1	1	
	Fem...	19		2	1		3	1	1	2	4	1	1	3
Muskegon ...	Total...	292	16	21	28	31	10	29	20	20	36	21	21	30
	Males...	141	8	10	16	12	5	16	12	15	11	12	6	18
	Fem...	151	8	11	12	19	5	13	8	14	25	9	15	12
Negaunee	Total...	132	6	8	12	14	15	13	8	8	16	11	10	11
	Males...	82	2	6	8	9	7	10	7	3	9	8	8	6
	Fem...	50	4	2	4	5	8	3	1	5	7	3	2	6
Niles	Total...	62	4	3	7	0	9	3	1	4	3	6	6	10
	Males...	31	3	3	5	2	2	3		2		3	2	6
	Fem...	31	1		2	4	7		1	2	3	3	4	4
North Muskegon ..	Total...	10	2		1	1	2				1	2		1
	Males...	3					2							1
	Fem...	7	2		1	1					1	2		
Norway	Total...	68	9	4	7	7	7	6	4	5	5	7	3	4
	Males...	42	4	2	3	3	6	5	2	5	3	4	2	3
	Fem...	26	5	2	4	4	1	1	2		2	3	1	1

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TABLE V.—Concluded.—Deaths in Michigan cities, by months and sex, during the year 1900. (Stillbirths included.)

Cities.	Sex.	Year, 1900.	Months, 1900.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Owosso	Total...	110	9	10	11	17	6	5	8	8	12	7	4	13
	Males...	66	5	6	8	12	3	3	4	3	9	5	1	7
	Fem...	44	4	4	3	5	3	2	4	5	3	2	3	6
Petoskey.....	Total...	71	3	4	9	4	7	4	9	7	9	6	7	2
	Males...	41	2	1	6	3	5	3	7	5	2	2	3	2
	Fem...	30	1	3	3	1	2	1	2	2	7	4	4	.....
Pontiac.....	Total...	154	13	16	9	12	7	14	11	23	19	12	6	12
	Males...	92	7	12	4	10	4	8	6	14	9	6	5	7
	Fem...	62	6	4	5	2	3	6	5	9	10	6	1	5
Port Huron..	Total...	282	17	23	28	34	11	21	23	26	34	23	23	19
	Males...	132	11	11	15	21	5	13	11	11	17	12	11	14
	Fem...	150	6	12	13	13	6	8	12	15	17	11	12	5
Saginaw.....	Total...	625	41	56	61	39	48	41	50	59	56	58	51	65
	Males...	345	21	27	39	24	28	25	29	31	31	30	30	29
	Fem...	280	20	29	22	15	20	16	20	28	25	28	21	26
St. Clair.....	Total...	34	2	2	3	1	8	2	5	4	1	.....	3	3
	Males...	23	1	1	2	1	6	.....	4	3	1	.....	1	3
	Fem...	11	1	1	1	.....	2	2	1	1	.....	.....	2	.....
St. Ignace....	Total...	28	1	2	.....	3	4	2	2	2	5	2	3	2
	Males...	12	1	2	.....	2	2	2	.....	1	.....	1	.....	1
	Fem...	16	.....	.....	.....	1	2	.....	2	1	5	1	3	1
St. Joseph....	Total...	53	6	4	5	4	3	4	4	9	4	5	1	4
	Males...	27	3	1	2	1	1	3	2	6	2	4	.....	2
	Fem...	25	3	3	3	3	2	1	2	2	2	1	1	2
St. Louis.....	Unk...	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
	Total...	34	1	3	2	5	3	1	4	3	5	1	5	1
	Males...	11	.....	1	1	1	2	.....	2	.....	.....	1	3	.....
Sault Ste. Marie.....	Fem...	23	1	2	1	4	1	1	2	3	5	.....	2	1
	Total...	220	11	14	17	19	13	10	21	20	25	20	27	23
	Males...	134	8	7	11	7	7	7	15	9	17	14	18	14
Stanton	Fem...	86	3	7	6	12	6	3	6	11	8	6	9	9
	Total...	26	3	3	3	1	3	2	.....	3	4	3	.....	1
	Males...	13	.....	3	1	1	2	.....	.....	2	2	1	.....	1
Sturgis.....	Fem...	13	3	.....	2	.....	1	2	.....	1	2	2	.....	.....
	Total...	32	1	4	2	1	2	1	2	5	4	2	3	5
	Males...	15	1	2	1	.....	1	1	.....	3	1	1	.....	4
Tawas City...	Fem...	17	.....	2	1	1	1	.....	2	2	3	1	3	1
	Total...	13	1	1	.....	2	.....	1	.....	.....	2	2	1	3
	Males...	6	1	.....	.....	.....	.....	1	.....	.....	1	1	1	1
Three Rivers..	Fem...	7	.....	1	.....	2	.....	.....	.....	.....	1	1	.....	2
	Total...	59	2	6	8	7	5	9	1	6	4	4	4	3
	Males...	30	.....	3	6	4	2	6	.....	2	2	2	1	2
Traverse City	Fem...	29	2	3	2	3	3	3	1	4	2	2	3	1
	Total...	145	11	11	8	15	13	16	9	16	12	13	13	8
	Males...	78	4	7	3	6	8	10	5	8	6	9	6	6
West Bay City.....	Fem...	67	7	4	5	9	5	6	4	8	6	4	7	2
	Total...	219	19	20	14	22	17	15	15	25	29	15	16	12
	Males...	120	10	13	8	13	8	9	9	15	15	8	6	6
Wyandotte...	Fem...	97	8	7	6	9	8	6	6	10	14	7	10	6
	Unk...	2	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
	Total...	90	11	5	5	9	6	5	7	10	10	8	8	6
Ypsilanti.....	Males...	49	7	2	3	3	3	3	5	6	3	5	6	3
	Fem...	41	4	3	2	6	3	2	2	4	7	3	2	3
	Total...	95	6	5	11	14	12	3	5	9	5	5	7	13
Ypsilanti.....	Males...	45	5	4	3	6	4	3	4	5	1	1	3	6
	Fem...	50	1	1	8	8	8	.....	1	4	4	4	4	7

VITAL STATISTICS OF MICHIGAN, 1900.

TABLE VI.—Deaths in Michigan cities, by age

Cities.	Sex.	Total deaths at all ages, 1900.*	Still-born.	Ages in years.				
				Under 1 year.†	1.	2.	3.	4.
ALL CITIES	Total	14,577	805	3,277	578	259	150	125
	Males	7,623	475	1,806	297	137	71	68
	Females	6,946	323	1,470	281	122	79	57
	Unknown	8	7	1				
Adrian	Total	159	4	22	2	3	1	1
	Males	81	2	17	1	2	1	1
	Females	78	2	5	1	1		
Albion	Total	65	2	12				1
	Males	32	2	7				1
	Females	33		5				
Alpena	Total	207	7	74	14	1	3	4
	Males	103	5	42	6	1	2	2
	Females	104	2	32	8		1	2
Ann Arbor	Total	198		20	1	2	2	
	Males	91		11				
	Females	107		9	1	2	2	
Au Sable	Total	14		7		1		
	Males	7		5				
	Females	7		2		1		
Battle Creek	Total	271	7	28	9	5	3	
	Males	148	4	21	4	4	3	
	Females	123	3	7	5	1		
Bay City	Total	382	23	91	16	17	5	5
	Males	199	13	54	8	11	2	3
	Females	183	10	37	8	6	3	2
Belding	Total	45	4	8				
	Males	17	1	4				
	Females	28	3	4				
Benton Harbor	Total	73	1	12	3	2		1
	Males	38		7	1	1		
	Females	35	1	5	2	1		1
Bessemer	Total	71	5	23	2	2	1	
	Males	40	3	11			1	
	Females	31	2	12	2	2		
Big Rapids	Total	88	4	7	5			
	Males	48	3	2	2			
	Females	40	1	5	3			
Cadillac	Total	84	9	21	5			1
	Males	50	6	11	2			1
	Females	34	3	10	3			
Charlotte	Total	68	1	4	2			1
	Males	47	1	3	2			1
	Females	21		1				
Cheboygan	Total	67	4	26	3	1	1	1
	Males	42	2	15	3	1	1	1
	Females	25	2	11				
Clare	Total	18	1	4				
	Males	10		2				
	Females	8	1	2				
Coldwater	Total	94	6	9	2		1	
	Males	48	4	8	1			
	Females	46	2	1	1		1	
Corunna	Totals	20		6	1			
	Males	10		4				
	Females	10		2	1			

* Stillbirths included.

† Stillbirths not included.

DEATHS IN CITIES.

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and sex, during the year 1900. (Stillbirths included.)

Ages in five year periods.																	
Under 5 years.†	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 and over.	Unk.
4,389 2,379 2,009 1	456 243 213 1	267 128 139 1	439 230 209 1	570 279 291 1	646 296 350 1	566 264 302 1	564 270 294 1	561 311 250 1	542 289 253 1	560 317 243 1	602 341 261 1	645 364 281 1	677 343 334 1	773 396 377 1	649 307 342 1	844 375 469 1	22 16 6
29 22 7	1 1 1	4 4 1	8 5 3	2 1 1	4 2 2	5 2 3	5 2 3	5 3 2	8 4 4	6 2 4	12 4 8	11 3 8	13 6 7	15 9 6	10 7 3	17 7 10	
13 8 5	4 2 2	1 1 1	3 2 1	1 1 1	1 1 1	1 1 1	5 1 4	3 1 2	1 1 1	6 3 3	1 1 1	2 1 1	5 1 4	5 1 4	5 1 1	6 4 1	
96 53 43	11 4 7	6 4 2	11 3 8	8 2 6	6 2 4	10 2 8	5 2 3	4 3 1	6 2 4	2 1 1	8 5 3	4 1 3	7 5 2	6 5 1	3 2 1	7 2 1	
25 11 14	1 1 1	3 2 1	9 9 6	9 5 4	19 10 9	11 6 6	6 3 3	9 6 5	10 4 6	15 8 7	13 5 8	9 7 2	14 6 8	12 7 5	17 5 12	16 5 11	
8 5 3	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	
45 32 13	9 7 2	3 2 1	4 2 2	13 7 6	11 2 9	18 7 10	18 7 11	16 8 8	9 4 5	10 5 5	16 13 3	13 11 2	10 6 4	22 9 13	18 9 8	29 11 18	
134 78 56	16 5 11	13 5 8	12 6 6	23 10 13	9 2 7	12 6 6	10 4 6	21 11 10	17 11 3	22 11 11	11 6 5	15 9 7	16 9 7	12 7 5	14 5 9	9 6 3	
8 4 4	3 1 2	3 1 2	2 1 2	2 1 1	3 2 2	3 1 2	3 1 1	2 1 1	2 1 1	3 1 2	2 1 2	1 2 1	1 1 1	5 1 4	3 1 2	3 1 2	
18 9 9	2 1 1	2 1 2	3 2 3	5 3 3	2 1 2	4 2 1	6 2 2	1 5 1	1 1 1	2 1 1	6 3 3	5 4 3	4 3 1	4 4 4	4 2 2	4 2 2	
28 12 16	3 1 3	1 1 3	1 1 2	7 5 2	5 4 1	5 4 1	1 1 1	3 3 1	4 3 1	1 1 2	2 1 2	1 1 2	1 1 2	2 1 2	2 1 1	2 1 1	
12 4 8	3 3 1	3 3 1	7 6 2	9 7 1	8 7 2	2 2 5	7 3 2	5 3 2	6 3 3	1 1 3	4 1 3	5 1 1	6 4 4	2 2 2	5 5 5	4 3 1	
27 14 13	5 4 1	4 2 2	2 2 1	1 1 2	4 2 2	4 3 1	2 1 1	1 1 1	3 2 1	8 6 2	4 2 2	4 1 3	3 2 1	3 2 1	1 1 1	1 1 1	
7 6 1	1 1 1	1 1 1	1 1 1	1 1 1	3 3 2	2 2 2	1 1 1	3 3 1	2 2 1	4 2 2	4 3 1	4 3 1	8 4 4	7 4 3	8 4 3	11 8 3	
32 21 11	2 2 1	3 2 1	1 2 1	5 2 3	1 2 1	3 2 1	4 2 2	1 2 2	1 1 1	1 1 1	1 1 1	1 1 1	3 3 1	3 2 1	2 2 1	1 1 1	
4 2 2	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	3 3 1	1 1 1	1 1 1	1 1 1	
12 9 3	2 1 1	2 1 1	2 1 1	7 2 5	7 3 4	7 3 4	2 2 1	4 3 1	3 3 1	3 3 5	6 3 2	3 1 2	7 1 5	10 7 3	8 2 6	12 5 7	
7 4 3	1 1 1	1 1 1	1 1 1	2 1 2	1 1 1	1 1 1	1 1 1	2 1 1	2 1 1	2 1 1	2 1 1	2 1 1	1 1 1	2 1 1	2 1 1	1 1 1	

† Stillbirths not included.

TABLE VI.—Continued.—Deaths in Michigan cities, by ages

Cities.	Sex.	Total deaths at all ages, 1900.*	Still-born.	Ages in years.				
				Under 1 year.†	1.	2.	3.	4.
Crystal Falls.....	Total.....	25		8	1	1	2	
	Males.....	13		4	1	1		
	Females.....	12		4			2	
Detroit.....	Total.....	4,711	330	1,278	200	84	48	37
	Males.....	2,390	207	674	105	45	25	17
	Females.....	2,320	122	604	95	39	23	20
	Unknown.....	1	1					
Dowagiac.....	Total.....	77	1	7	5	2	1	3
	Males.....	36	1	4	2			
	Females.....	41		3	3	2	1	1
East Tawas.....	Total.....	13		6		1		
	Males.....	11		5		1		
	Females.....	2		1				
Eaton Rapids.....	Total.....	34		8				
	Males.....	17		6				
	Females.....	17		3				
Escanaba.....	Total.....	217	7	68	17	2	2	2
	Males.....	139	3	41	8	2		2
	Females.....	78	4	27	9		2	
Flint.....	Total.....	154	6	19	3			1
	Males.....	66	2	9		1		
	Females.....	88	4	10	3	1		1
Gladstone.....	Total.....	43	2	16	5	2	2	
	Males.....	50	1	5	3	2		
	Females.....	23	1	11	2		2	
Gladwin.....	Total.....	7		1				
	Males.....	4						
	Females.....	3		1				
Grand Haven.....	Total.....	51	3	4	3			1
	Males.....	32	1	2	1			1
	Females.....	19	2	2	2			
Grand Ledge.....	Total.....	22		1				
	Males.....	10		1				
	Females.....	12						
Grand Rapids.....	Total.....	1,268	88	235	56	23	23	12
	Males.....	643	40	135	25	14	13	7
	Females.....	625	48	100	31	9	10	5
Greenville.....	Total.....	54	2	6		1	1	
	Males.....	15					1	
	Females.....	39	2	6		1		
Harrison.....	Total.....	16		2	1			
	Males.....	10		2	1			
	Females.....	6						
Hastings.....	Total.....	27	2	5				
	Males.....	14		3				
	Females.....	13	2	2				
Hillsdale.....	Total.....	60	2	3				
	Males.....	31	1	3				
	Females.....	28						
	Unknown.....	1	1					
Holland.....	Total.....	124	11	21	6	3		1
	Males.....	63	8	8	5	1		
	Females.....	60	2	13	1	2		1
	Unknown.....	1	1					
Hudson.....	Total.....	39	3	1				
	Males.....	15	2					
	Females.....	24	1	1				

* Stillbirths included.

† Stillbirths not included.

DEATHS IN CITIES.

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and sex, during the year 1900. (Stillbirths included.)

Ages in five-year periods.

Under 5 years.†	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 and over.	Unk.
12	3	3	...	1	1	...	...	1	1	...	1	...	...	...	1	...	1
6	3	1	...	1	1	...	...	...	...	...	1	...	...	...	...	...	1
6	...	2	...	...	...	...	...	1	1	...	...	...	...	...	1	...	1
1,647	127	76	126	160	206	164	190	165	171	179	161	218	199	229	173	187	3
869	70	35	61	77	73	75	80	76	93	93	89	121	92	110	85	85	2
781	57	41	65	83	133	89	110	89	78	86	72	97	107	119	88	102	1
18	4	1	1	2	2	5	2	2	3	4	4	5	5	8	3	7	...
8	2	1	1	1	2	2	2	2	3	2	1	3	2	4	3	5	...
10	2	...	...	1	2	3	2	2	...	2	3	2	3	4	3	2	...
7	...	...	1	...	...	1	...	1	...	...	...	1	...	...	...	1	...
6	...	...	1	...	...	...	...	1	1	...	...	1	...	...	...	1	...
1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...
8	...	...	1	5	1	1	...	2	1	1	3	1	1	1	1	7	...
5	...	...	1	3	2	...	...	...	...	1	1	1	1	1	1	3	...
3	...	...	...	2	1	1	...	2	1	...	2	...	...	1	...	4	...
91	3	7	10	9	14	9	16	6	10	7	7	5	3	4	4	3	2
53	2	2	7	6	11	6	13	5	7	6	5	5	2	1	2	2	2
38	1	5	3	3	3	3	3	1	3	1	2	...	2	3	2	1	...
25	1	5	2	2	7	7	4	12	2	7	10	7	13	8	13	23	...
10	3	...	1	4	1	6	1	6	2	2	4	5	4	6	4	8	...
15	1	2	2	1	3	3	3	6	...	5	6	2	9	2	9	15	...
25	1	2	1	...	1	6	2	...	...	...	...	...	2	...	...	1	...
10	...	1	1	...	...	4	2	...	...	...	...	...	2	...	...	...	...
15	1	1	1	...	1	2	...	...	...	...	...	...	...	...	...	1	...
1	...	...	...	...	...	1	1	...	...	1	2	1	...	...	...	...	...
1	...	...	...	...	...	1	1	...	...	1	2	1	...	...	...	...	...
8	1	3	1	1	4	2	2	2	2	2	1	4	2	3	6	4	...
4	1	1	...	1	2	2	1	2	1	1	1	4	2	3	5	2	...
4	...	2	1	...	2	...	1	...	1	1	1	...	...	1	1	2	...
1	...	1	2	2	1	1	...	...	2	1	...	6	...	...	1	4	...
1	...	1	1	1	1	1	...	...	1	1	...	3	...	...	...	2	...
1	...	1	1	1	1	1	...	...	1	1	...	3	...	...	1	2	...
349	38	25	33	54	42	45	51	59	53	43	59	59	69	62	58	80	1
194	18	11	19	25	20	16	20	33	24	25	33	28	40	35	24	38	...
156	20	14	14	29	22	29	31	26	29	18	20	31	29	27	34	42	1
8	1	2	3	3	1	1	...	1	3	3	5	2	6	7	1	5	...
1	...	...	1	...	...	...	...	...	...	1	1	2	4	3	1	1	...
7	1	2	2	3	1	1	...	1	3	2	4	...	2	4	...	4	...
3	...	2	...	2	2	...	...	2	2	1	1	...	2	1	...	...	...
3	...	...	...	...	...	...	...	1	1	1	1	...	1	1	...	...	...
5	...	...	...	...	2	1	1	3	1	3	2	1	1	4	1	...	...
3	...	...	...	...	1	1	...	1	...	2	1	1	1	2	1	...	...
2	...	...	...	...	1	1	...	1	1	1	1	...	...	2	1	...	...
3	2	2	2	1	4	4	1	3	4	4	4	2	3	6	6	11	...
3	1	1	1	1	2	2	1	1	1	1	1	1	2	4	3	6	...
1	...	1	1	1	1	2	2	2	2	3	3	1	1	2	3	5	...
31	...	9	5	8	4	11	...	...	2	6	6	5	5	4	9	8	...
14	...	5	5	3	3	5	...	...	1	5	2	2	3	2	2	3	...
17	...	4	...	5	1	6	...	...	1	1	4	3	2	2	7	5	...
1	...	...	...	...	3	2	1	4	1	...	1	1	2	5	5	7	...
1	...	...	...	...	3	1	1	1	1	...	1	...	...	...	1	4	...
1	...	2	...	...	1	...	...	3	1	...	...	1	2	5	4	3	...

† Stillbirths not included.

TABLE VI.—Continued.—Deaths in Michigan cities, by ages

Cities.	Sex.	Total deaths at all ages, 1900.*	Still-born.	Ages in years.				
				Under 1 year.†	1.	2.	3.	4.
Ionia.....	Total.....	68	1	12	1	1		
	Males.....	36		8	1	1		
	Females.....	32	1	4				
Iron Mountain.....	Total.....	143	11	55	6	9	2	3
	Males.....	87	8	31	4	4	2	1
	Females.....	56	3	24	2	5		2
Ironwood.....	Total.....	170	14	66	12	4	3	3
	Males.....	92	10	30	6	2		2
	Females.....	78	4	36	6	2	3	1
Ishpeming.....	Total.....	193	19	57	14	7	5	4
	Males.....	108	14	36	6	5	2	1
	Females.....	84	4	21	8	2	3	3
	Unknown.....	1	1					
Jackson.....	Total.....	327	15	38	5	5		1
	Males.....	171	7	24	3	4		
	Females.....	156	8	14	2	1		1
Kalamazoo.....	Total.....	462	10	62	16	8	3	2
	Males.....	238	5	38	10	5	1	1
	Females.....	224	5	24	6	3	2	1
Lansing.....	Total.....	239	9	32	7	7	3	1
	Males.....	109	5	21	3	3	1	
	Females.....	130	4	11	4	4	2	1
Lapeer.....	Total.....	54		8	1		1	
	Males.....	29		4				
	Females.....	25		4	1		1	
Ludington.....	Total.....	118	9	32	2	6	1	1
	Males.....	62	7	19	1	2	1	1
	Females.....	56	2	13	1	4		
Mackinac Island.....	Total.....	12		5				1
	Males.....	8		3				1
	Females.....	4		2				
Manistee.....	Total.....	170	16	55	13	7		3
	Males.....	94	10	28	6	3		
	Females.....	76	6	27	7	4		3
Manistique.....	Total.....	78	4	26	2	3	1	2
	Males.....	41	2	12	1	1		1
	Females.....	37	2	14	1	2	1	1
Marine City.....	Total.....	77	6	29	3			
	Males.....	48	3	17	2			
	Females.....	29	3	12	1			
Marquette.....	Total.....	205	16	53	10	4	4	3
	Males.....	120	11	35	4	2	2	2
	Females.....	85	5	18	6	2	2	1
Marshall.....	Total.....	42		4				
	Males.....	22		1				
	Females.....	20		3				
Mason.....	Total.....	35	1	2	1	1		
	Males.....	18			1			
	Females.....	17	1	2		1		
Menominee.....	Total.....	189	17	59	10	2	5	1
	Males.....	98	11	32	5	1	1	1
	Females.....	90	5	27	5	1	4	
	Unknown.....	1	1					

* Stillbirths included.

† Stillbirths not included.

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and sex, during the year 1900. (Stillbirths included.)

Ages in five-year periods.

Under 5 years.†	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 and over.	Unk.
14	3	1	2	2	3	2	1	4	4	3	4	6	7	5	6	6	..
10	2	1	1	1	1	2	1	3	3	1	2	2	4	3	1	1	..
4	1	1	1	1	1	1	2	1	1	1	2	2	4	3	2	5	..
75	7	2	4	5	3	4	5	6	4	3	2	2	3	1	4	1	..
42	2	2	1	3	1	4	5	5	3	2	1	1	2	1	1	1	..
33	5	1	4	2	2	2	1	1	1	1	1	1	1	1	1	3	..
88	8	2	8	9	9	7	2	6	3	1	1	1	1	1	5	1	..
40	4	1	8	7	6	3	2	4	1	1	1	1	1	1	1	1	..
48	4	1	2	2	3	4	2	2	2	2	2	2	2	1	4	1	..
87	15	1	6	6	9	2	2	5	3	4	4	8	5	1	5	1	..
50	7	4	3	3	3	2	2	5	2	2	2	3	4	1	1	1	..
37	8	1	2	7	3	6	1	1	1	2	2	5	1	1	5	5	..
49	4	3	17	15	15	19	7	12	11	17	27	19	16	22	30	29	..
31	3	2	11	5	6	7	3	7	8	10	17	12	7	9	12	14	..
18	1	1	6	10	9	12	4	5	3	7	10	7	9	13	18	15	..
91	13	3	14	17	12	20	23	23	24	24	16	32	23	41	21	48	2
55	8	2	5	5	3	9	11	14	12	15	12	16	14	23	8	19	2
36	5	1	9	12	9	11	12	9	12	9	4	16	14	18	13	29	..
50	12	5	8	5	9	14	4	12	10	9	10	14	11	19	14	21	3
28	7	1	4	1	4	5	1	7	5	7	3	4	3	10	5	7	2
22	5	4	4	4	5	3	5	5	5	2	7	10	8	9	9	14	1
10	5	2	3	1	1	1	1	4	5	1	4	5	3	6	5	5	..
4	2	1	1	1	1	1	1	2	4	1	3	3	3	1	4	3	..
6	3	1	2	1	1	1	1	2	1	1	2	1	2	2	2	2	..
42	3	2	4	7	3	5	4	4	3	6	4	2	7	4	4	5	..
24	2	1	3	1	3	1	1	3	3	3	2	2	5	1	2	3	..
18	1	2	3	4	2	2	3	3	3	3	2	2	2	3	2	2	..
6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	..
4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	..
2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	..
78	5	4	5	5	4	4	6	4	8	5	6	5	5	2	4	4	..
37	1	2	4	3	4	2	2	4	3	3	5	4	4	1	4	1	..
41	4	2	1	2	2	2	4	5	2	1	1	1	1	1	1	3	..
34	2	5	3	4	2	5	2	2	4	4	3	2	1	1	1	1	..
15	2	1	3	3	2	3	2	4	3	3	3	2	2	1	1	1	..
19	1	4	1	1	1	2	2	2	1	1	2	2	1	1	1	1	..
32	6	2	1	1	1	1	2	3	3	1	2	4	1	5	3	4	..
19	4	1	1	1	1	1	1	3	1	1	1	2	4	2	3	1	..
13	2	1	1	1	1	1	1	2	2	1	1	2	1	1	1	1	..
74	7	4	6	11	12	7	16	3	6	4	10	8	4	7	6	4	..
45	5	1	5	10	6	4	10	2	3	2	4	5	2	3	1	1	..
29	2	3	1	1	6	3	6	1	3	2	6	3	2	4	5	3	..
4	1	1	1	4	3	1	2	3	4	1	4	4	4	4	2	5	1
1	1	1	1	2	2	2	1	1	3	1	2	3	2	1	2	2	1
3	1	1	1	2	1	1	1	1	3	1	2	2	1	2	1	3	..
4	1	1	1	3	1	1	3	3	2	1	3	2	3	4	2	1	..
1	1	1	1	1	1	1	2	3	1	3	2	2	1	3	1	1	..
3	1	1	1	2	1	1	1	1	1	1	1	1	2	1	2	1	..
77	7	4	7	8	5	10	7	6	4	7	8	3	3	4	6	6	..
40	3	2	4	4	3	5	4	4	1	5	4	3	2	2	3	2	..
37	4	4	5	4	2	5	3	2	3	2	4	1	1	2	3	4	..

† Stillbirths not included.

TABLE VI.—Continued.—Deaths in Michigan cities, by ages

Cities.	Sex.	Total deaths at all ages, 1900.*	Still-born.	Ages in years.				
				Under 1 year.†	1.	2.	3.	4.
Midland.....	Total.....	34	3	5	5			
	Males.....	20	1	3	4			
	Females.....	14	2	2	1			
Monroe.....	Total.....	72	1	9	1	2	1	
	Males.....	28		3	1	1	1	
	Females.....	44	1	6		1		
Mt. Clemens.....	Total.....	128	4	18	5	5	1	2
	Males.....	74	3	10	3	1		2
	Females.....	54	1	8	2	4	1	
Mt. Pleasant.....	Total.....	41		7	2			1
	Males.....	22		3				1
	Females.....	19		4	2			
Muskegon.....	Total.....	292	14	73	21	6	2	1
	Males.....	141	7	38	12	1	1	
	Females.....	151	7	35	9	5	1	1
Negaunee.....	Total.....	132	12	41	7	3	2	1
	Males.....	82	4	25	4	1	2	
	Females.....	50	4	16	3	2		1
Niles.....	Total.....	62	2	9		1		
	Males.....	31	2	3		1		
	Females.....	31		6				
North Muskegon.....	Total.....	10	1	2				
	Males.....	3		1				
	Females.....	7	1	1				
Norway.....	Total.....	68	2	25	4	1	2	1
	Males.....	42	1	17	2	1	1	
	Females.....	26	1	8	2		1	1
Owosso.....	Total.....	110	1	19	2	2	1	
	Males.....	66	1	13	1	2		
	Females.....	44		6	1		1	
Petoskey.....	Total.....	71	2	18	4	2		
	Males.....	41	1	7	3	1		
	Females.....	30	1	11	1			
Pontiac.....	Total.....	154	3	17	1	1		1
	Males.....	92	2	10	1			
	Females.....	62	1	7		1		1
Port Huron.....	Total.....	282	21	51	5	1	2	1
	Males.....	152	13	30	2	1	1	1
	Females.....	130	8	21	3		1	
Saginaw.....	Total.....	625	30	116	16	5	3	7
	Males.....	345	18	67	11	4	1	6
	Females.....	280	12	49	5	1	2	1
St. Clair.....	Total.....	34	1	3		2		
	Males.....	23		3		1		
	Females.....	11	1					
St. Ignace.....	Total.....	28		8	2		1	1
	Males.....	12		3	1			
	Females.....	16		5	1		1	1
St. Joseph.....	Total.....	53	3	6	1			1
	Males.....	27	2	2	1			1
	Females.....	25		4				
	Unknown.....	1	1					
St. Louis.....	Total.....	34		4	2			
	Males.....	11						
	Females.....	23		4	2			

• Stillbirths included.

† Stillbirths not included.

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and sex, during the year 1900. (Stillbirths included.)

Ages in five-year periods.

Under 5 years.†	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 and over.	Unk.
10	2	3	1	1	1	1	1	2	1	2	3	1	1	1	1	1	4
7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	3
13	2	1	3	3	6	2	2	2	3	1	4	5	3	6	2	13	13
6	1	1	3	3	3	3	1	1	2	1	4	1	3	2	2	4	4
7	1	1	1	3	3	2	1	2	3	1	3	1	3	4	1	9	9
31	6	2	6	5	11	7	8	5	7	5	8	6	4	4	2	7	7
16	2	1	3	3	8	4	5	3	6	2	7	3	3	2	1	2	2
15	4	1	3	2	3	3	3	2	1	3	1	3	1	2	1	5	5
10	2	2	1	3	1	2	1	1	1	3	4	2	3	4	1	4	4
4	1	1	1	2	1	1	1	1	1	2	3	1	2	1	1	3	3
6	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1
103	10	5	15	16	11	6	7	6	10	11	11	16	16	16	9	10	10
52	3	3	7	7	6	5	2	2	4	4	5	7	9	11	3	4	4
51	7	2	8	9	5	1	5	4	6	7	6	9	7	5	6	6	6
54	6	1	1	7	9	7	2	8	5	1	2	4	1	2	5	4	2
32	3	1	1	4	4	6	2	7	3	1	3	1	1	1	3	2	1
22	3	1	1	3	5	1	1	1	2	1	1	1	1	1	2	2	1
10	1	1	1	1	1	2	2	2	1	7	1	9	5	9	10	10	10
4	1	1	1	1	1	1	1	1	1	1	1	4	4	4	2	4	4
6	1	1	1	1	1	1	1	1	1	3	1	5	1	7	6	6	6
2	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	2	2
1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1
33	2	1	3	3	4	3	1	5	2	3	1	1	1	2	1	1	1
21	2	1	2	2	1	1	1	4	1	2	1	1	1	1	1	1	1
12	1	1	1	1	3	2	1	1	1	1	1	1	1	1	1	1	1
24	3	3	5	2	5	1	3	5	3	3	7	8	10	10	11	6	6
16	2	3	2	1	2	1	1	3	3	1	5	4	8	5	7	3	3
8	1	1	3	1	3	1	2	2	1	3	2	4	2	5	4	3	3
24	1	3	1	2	3	2	1	6	2	1	4	7	5	2	3	3	3
11	1	3	1	1	2	1	1	4	2	1	2	6	1	1	3	1	1
13	1	1	1	1	1	2	1	2	1	1	2	1	4	1	1	2	2
20	2	5	2	7	6	6	9	6	9	11	5	13	11	10	9	19	1
11	3	1	3	3	3	3	6	5	6	10	3	9	6	5	5	10	1
9	2	2	1	4	3	3	3	1	3	1	2	4	5	5	4	9	9
60	10	7	12	13	11	11	9	14	10	9	18	16	6	25	9	21	1
35	8	5	6	5	4	4	6	8	6	4	8	11	1	14	4	10	10
25	2	2	6	8	7	7	3	6	4	5	10	5	5	11	5	11	11
147	25	13	17	28	35	30	26	23	26	30	27	14	33	42	26	53	53
89	13	6	9	12	15	12	13	11	10	20	21	10	18	25	15	28	28
58	12	7	8	16	20	18	13	12	16	10	6	4	15	17	11	25	25
5	2	3	2	1	1	1	1	2	2	2	4	2	1	1	2	5	5
4	2	1	1	1	1	1	1	2	2	1	3	1	1	1	2	3	3
1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2
12	2	2	2	2	2	2	2	2	1	1	1	1	2	2	2	2	2
4	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2
8	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2
8	1	1	1	1	1	1	1	1	1	1	1	1	3	3	4	7	7
4	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1
4	1	1	1	1	1	1	1	1	1	1	1	1	2	1	2	6	6
6	2	1	1	1	1	1	1	1	1	1	1	1	3	2	2	4	4
1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1	1
6	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	3	3

† Stillbirths not included.

TABLE VI.—Concluded.—Deaths in Michigan cities, by ages

Cities.	Sex.	Total deaths at all ages, 1900.*	Still-born.	Ages in years.				
				Under 1 year.†	1.	2.	3.	4.
Sault Ste. Marie.....	Total	220	5	57	12	3	4	5
	Males.....	134	4	31	5	1	2	3
	Females.....	86	1	26	7	2	2	2
Stanton	Total	26		4				
	Males.....	13		4				
	Females.....	13						
Sturgis.....	Total	32	1	6				
	Males.....	15	1	4				
	Females.....	17		2				
Tawas City	Total	13	1	4		1		
	Males.....	6		2				
	Females.....	7	1	2		1		
Three Rivers.....	Total	59		6	1	1		
	Males.....	30		2		1		
	Females.....	29		4	1			
Traverse City	Total	145	2	16	3	1	2	3
	Males.....	78	1	8	1		1	1
	Females.....	67	1	8	2	1	1	2
West Bay City	Total	219	13	55	16	3	2	2
	Males.....	120	5	32	10		1	2
	Females.....	97	7	22	6	3	1	
	Unknown	2	1	1				
Wyandotte.....	Total	90		28	3		1	
	Males.....	49		15	1		1	
	Females.....	41		13	2			
Ypsilanti.....	Total	95		12			2	1
	Males.....	45		6				1
	Females.....	50		6			2	

* Stillbirths included.

† Stillbirths not included.

DEATHS IN CITIES.

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and sex, during the year 1900. (Stillbirths included.)

Ages in five-year periods.

Under 5 years.†	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 and over.	Unk.
81	9	2	5	7	27	8	12	7	7	3	11	7	9	7	7	4	2
42	7	2	4	6	18	6	8	6	3	3	6	3	5	4	3	2	2
39	2	1	1	1	9	2	4	1	4	5	5	4	4	3	4	2	2
4	1	1	1	1	1	1	3	4	1	1	1	4	1	1	2	3	1
4	1	1	1	1	1	1	1	2	2	1	1	2	1	1	1	1	1
6	1	1	1	2	1	1	2	1	1	1	1	1	6	3	2	5	1
4	1	1	1	2	1	1	1	1	1	1	1	1	3	1	1	2	1
2	1	1	1	2	1	1	1	1	1	1	1	1	3	2	1	3	1
5	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1
3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	1	2	1	2	6	1	2	1	1	1	2	4	5	6	9	8	1
3	1	1	1	1	1	1	1	1	1	1	2	3	4	4	5	3	1
5	1	1	1	1	1	5	1	1	1	1	1	1	1	2	4	5	1
25	4	2	7	10	2	8	5	12	14	10	5	6	13	11	8	1	1
11	1	1	4	6	2	3	4	9	10	6	3	5	4	5	3	1	1
14	3	2	3	4	5	5	1	3	4	4	2	1	9	6	5	1	1
78	16	6	7	9	9	9	11	8	3	6	4	9	6	10	8	7	1
45	10	5	3	5	5	7	7	2	1	2	2	6	4	5	3	3	1
32	6	1	4	4	4	2	4	6	2	4	2	3	2	5	5	4	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
32	2	1	4	6	4	5	3	2	6	3	1	3	3	3	8	6	1
17	1	1	2	3	3	3	1	1	3	2	1	1	1	1	5	4	1
15	1	2	3	3	1	2	2	1	3	1	1	1	2	2	3	2	1
15	2	3	3	5	5	4	3	2	2	7	7	6	11	8	12	7	1
7	1	3	2	2	4	1	1	1	1	4	4	3	4	4	5	5	1
8	1	1	1	3	1	3	3	2	2	2	3	3	3	7	4	7	1

† Stillbirths not included.

NOTE ON DEATHS RETURNED FROM NON-REGISTRATION TOWNSHIPS FOR 1900.

The registration law provides that the filing of certificates of death and the issuing of burial or removal permits based thereon shall be applicable only to townships having a population of five persons to the square mile, according to the last Federal or State census, and that townships below this limit shall remain under the old registration law, which provides for an enumeration of deaths by the supervisor and a return by him to the county clerk, between the dates of April 10 and June 1, and a return by the county clerk to the Secretary of State of a transcript of the same on or before the first day of September in each year, the deaths covering the previous calendar year. As these returns are few in number, presumably quite imperfect, and are not based, so far as regards the statements of cause of death, upon physicians' certificates, it seemed inexpedient to delay the appearance of the Reports under the new law, which were compiled before the arrival of these returns at the State Department, in order to include the small additional number. It may be said that quite a number of these non-registration districts have expressed a desire to come under the operation of the law requiring burial permits, and some of them, indicated by asterisks, have made regular monthly reports which have been compiled with those made by the registrars of the regular registration districts. By an act passed by the Legislature of 1901, in immediate effect on March 18, 1901, all of the former non-registration districts are included under the law requiring burial permits. Following is a statement, by counties, of the deaths so returned for the year 1900, with population by State census of 1894:

ALCONA COUNTY, 1,352. Caledonia, 233; Curtis, 345; Hawes, 292; Mikado, 276; Millen, 118; Mitchell, 88. ALGER COUNTY, 1,385. Au Train, 280—3 deaths; Burt, 240—25 deaths; Mathias, 212—4 deaths; Munising, 367; Onoto, 138—3 deaths; Rock River, 148—no deaths; Limestone, 2 deaths.

ALPENA COUNTY, 249. Ossineke, 249.

ARENAC COUNTY, 31. Turner, *31.

BARAGA COUNTY, 561. Arvon, 288; Covington, 88; Spur, 185.

BENZIE COUNTY, 171. Lake, *171.

CHARLEVOIX COUNTY, 128. Hudson, 128.

CHEROKEE COUNTY, 1,485. Burt, 461; Ellis, *163; Forest, 154; Grant, *490; Waverly, 110; Wilmot, 107.

CHIPPewa COUNTY, 1,665. Dafter, 498—3 deaths; Drummond, 408—3 deaths; Rudyard, 240; Trout Lake, 89; Whitefish, 430.

CLARE COUNTY, 653. Franklin, 178—no deaths; Frost, 174—1 death; Hayes, 171—1 death; Summerfield, 130—2 deaths.

CRAWFORD COUNTY, 1,145. Ball, 120; Beaver Creek, 108; Blaine, 97; Center Plains, 152; Frederick, 253; Grove, 95; Maple Forest, 212; South Branch, *108.

DELTA COUNTY, 1,221. Baldwin, 460; Escanaba, 402; Maple Ridge, 359.

DICKINSON COUNTY, 1,753. Breen, 347; Felch, 589; Sagola, 300; Waucedah, *457.

EMMET COUNTY, 379. Bliss, 239; Eggleston, 140.

GLADWIN COUNTY, 896. Bentley, 268; Billings, 123; Buckeye, 254; Clement, 91; Sherman, *161.

GOGEBIC COUNTY, 1,422. Bessemer, 498; Ironwood, 238; Marenisco, 144; Watersmeet, 542.

HOUGHTON COUNTY, 231. Laird, 231—5 deaths.

ISOSCO COUNTY, 790. Oscoda, 225; Plainfield, 242; Wilber, 83.

IRON COUNTY, 931. Atkinson, 566—1 death; Hematite, 264—9 deaths; Mansfield, 101.

KALKASKA COUNTY, 479. Cold Springs, 123; Garfield, *165; Glade, 122; Oliver, 69.

KEWEENAW COUNTY, 139. Grant, 139—1 death.

LAKE COUNTY, 243. Lake, 89—2 deaths; Pleasant Plains, 71—1 death; Webber, 83—3 deaths.

LUCE COUNTY, 1,212. Columbus, 57; Lakefield, 191—2 deaths; McMillan, *776; Pentland, 188.

MACKINAC COUNTY, 2,225. Brevort, 291; Garfield, *442; Hendricks, 204; Holmes, *175; Marquette, 382; Moran, 370; Portage, *158; St Ignace, *203; Bois Blanc, Sherwood.

MARQUETTE COUNTY, 2,178. Ely, 531; Forsyth, 442; Humboldt, 263—4 deaths; Marquette, 220; Richmond, *63; Sands, 248—1 death; Skandia, 268—3 deaths; Turin, 143; West Branch, *.

MASON COUNTY, 355. Branch, *355.

MENOMINEE COUNTY, 414. Holmes, 414.

MIDLAND COUNTY, 167. Greendale, *167; Mills.

MISSAUKEE COUNTY, 970. Bloomfield, 154—2 deaths; Etna, 328—1 death; Norwich, *325—5 deaths; West Branch, *163—5 deaths.

MONTMORENCY COUNTY, 1,357. Briley, 180—2 deaths; Hillman, 361—1 death; Montmorency, 265—1 death; Rust, 291—no deaths; Vienna, 130—1 death; Wheatfield, 130.

OCEANA COUNTY, 156. Otto, *156.

OGEMAW COUNTY, 820. Beaver Lake, 97; Foster, 136; Goodar, 172; Hill, 77; Logan, 95; Mills, 81; Ogemaw, 162.

ONTONAGON COUNTY, 1,166. Bohemia, 172—1 death; Carp Lake, 53—1 death; Ontonagon, *421; Rockland, 520.

OSCODA COUNTY, 1,626. Atherton, 69; Comins, 410; Elmer, 351; Greenwood, 79; Harmon, 183; Mentor, 449; Mount Pindus, 85.

OTSEGO COUNTY, 824. Charlton, 131—1 death; Chester, *212—3 deaths; Dover, 184—4 deaths; Hayes, 297—6 deaths.

PRESQUE ISLE COUNTY, 1,139. Allis, 288; Bearinger, 270—4 deaths; Bismarck, 134—no deaths; Case, 271; Presque Isle, 176—no deaths.

ROSCOMMON COUNTY, 941. Denton, 65; Gerrish, 64; Markey, 39; Nester, 211; Richfield, 79; Roscommon, 186; St. Helens, 297.

SCHOOLCRAFT COUNTY, 2,258. Doyle, *621; Germfask, 210; Harrison, 558; Manistique, *353; Seney, 516.

WEXFORD COUNTY, 157. Slagle, *157.

The total population of non-registration townships was 35,274 from which 6,493 may be deducted for districts regularly reporting under the new law, leaving a remainder of 28,781 from which only the returns of deaths from supervisors were received. There were 117 deaths (11 of these, however, were regularly reported) so reported, 36 coming from Grand Marais village, Burt township, Alger county.

* These districts made monthly reports.

TABLES
RELATING TO
MARRIAGES
IN
MICHIGAN
DURING THE
YEAR 1900.

PRIMARY TABLES RELATING TO MARRIAGES IN MICHIGAN DURING THE YEAR 1900.

TABLE I.—Marriages in Michigan, by months and counties, during the year 1900.

TABLE II.—Persons married in Michigan, by ages, counties and sex, during the year 1900

TABLE III.—Marriages and persons married in Michigan, by nativity and counties during the year 1900.

TABLE IV.—Marriages in Michigan, by ages of males and females married, during the year 1900.

TABLE V.—Probate marriages in Michigan, by ages of males and females married during the year 1900.

NOTE.—*Secondary tables* containing marriage rates and other ratios, and *comparative tables*, displaying the facts relative to marriages in Michigan for the year 1900 in connection with previous years and other states and countries, may be found on preceding pages of this report, together with the descriptive text.

MARRIAGES.

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TABLE I.—Marriages in Michigan, by months and counties, during the year 1900.

State and counties.	Year, 1900.	Months, 1900.												
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.
STATE.....	23,296	1,717	1,541	1,322	1,765	1,779	2,398	1,800	1,876	2,192	2,496	2,332	2,075	2
Alcona.....	36	5	1	1	3	3	5	4	.....	2	3	3	6	.....
Alger.....	65	6	9	5	5	2	2	8	8	5	2	6	7	.....
Allegan.....	312	25	21	17	33	15	27	25	18	35	31	38	27	.....
Alpena.....	188	13	11	5	13	18	20	17	18	13	23	17	20	.....
Antrim.....	172	10	13	11	13	9	15	17	11	14	23	13	23	.....
Arenac.....	96	6	5	12	4	10	6	12	8	7	10	8	8	.....
Baraga.....	44	2	6	1	2	3	3	1	2	4	4	12	4	.....
Barry.....	212	23	20	15	17	16	14	14	11	24	23	14	21	.....
Bay.....	557	50	48	26	32	50	72	36	39	48	63	60	33	.....
Benzie.....	95	2	7	10	7	6	6	13	5	5	12	10	12	.....
Berrien.....	1,448	45	35	34	50	81	184	248	274	238	121	67	70	1
Branch.....	277	25	17	20	21	18	23	19	14	32	28	26	34	.....
Calhoun.....	509	38	27	26	37	35	73	38	40	40	61	51	43	.....
Cass.....	212	18	13	17	16	15	20	14	15	18	19	15	22	.....
Charlevoix.....	167	9	10	13	14	14	12	17	14	15	19	15	15	.....
Cheboygan.....	129	10	5	4	9	13	11	13	15	13	15	13	8	.....
Chippewa.....	200	12	12	10	10	14	26	15	15	16	29	20	21	.....
Clare.....	67	7	5	3	9	8	5	3	4	4	5	5	9	.....
Clinton.....	230	14	19	13	15	18	17	12	14	26	30	29	23	.....
Crawford.....	26	1	3	1	1	1	3	3	2	5	3	1	2	.....
Delta.....	248	12	14	5	30	23	28	24	24	19	27	30	12	.....
Dickinson.....	194	17	14	11	13	15	27	17	13	11	19	15	22	.....
Eaton.....	310	33	22	31	25	21	20	12	18	17	45	30	36	.....
Emmet.....	171	11	9	8	11	18	11	12	15	24	30	13	9	.....
Genesee.....	402	30	35	27	34	30	47	27	17	28	41	58	28	.....
Gladwin.....	57	5	2	8	1	3	5	2	2	5	9	8	7	.....
Gogebic.....	181	18	9	12	6	16	17	12	21	21	19	10	20	.....
Grand Traverse.....	237	13	17	24	25	18	24	18	11	18	25	27	17	.....
Gratiot.....	316	27	23	22	22	21	28	25	30	28	33	24	33	.....
Hillsdale.....	313	27	14	17	30	14	28	31	18	25	39	42	28	.....
Houghton.....	752	58	54	39	39	62	103	58	58	81	81	70	49	.....
Huron.....	276	33	18	16	17	18	23	17	13	25	36	29	31	.....
Ingham.....	375	21	26	27	33	30	33	16	21	48	44	39	37	.....
Ionia.....	312	29	17	19	34	27	25	9	20	30	29	30	43	.....
Iosco.....	91	6	3	3	7	11	5	11	10	9	11	7	8	.....
Iron.....	103	11	5	6	6	6	10	7	13	11	13	8	7	.....
Isabella.....	219	13	18	20	17	10	15	18	14	9	29	25	31	.....
Jackson.....	474	34	24	27	31	36	41	36	38	48	55	55	49	.....
Kalamazoo.....	435	30	35	31	47	23	43	30	33	45	40	40	38	.....
Kalkaska.....	68	3	2	7	1	8	9	6	5	4	8	8	7	.....
Kent.....	1,294	102	89	78	83	128	149	92	88	125	134	125	101	.....
Keweenaw.....	22	2	1	1	.....	.....	4	5	.....	3	1	2	3	.....
Lake.....	58	9	2	4	7	6	3	3	3	3	7	1	10	.....
Lapeer.....	242	17	22	20	23	13	24	8	18	18	19	23	37	.....
Leelanau.....	81	4	6	4	2	11	4	5	7	9	6	11	12	.....
Lenawee.....	464	40	38	31	32	41	35	32	20	41	41	62	51	.....
Livingston.....	152	13	13	13	15	6	5	6	12	10	13	28	18	.....
Luce.....	25	.....	.....	2	3	.....	1	5	2	6	4	1	1	.....
Mackinac.....	68	8	6	6	3	3	6	6	9	6	10	2	3	.....
Macomb.....	245	16	21	14	21	12	22	20	22	27	32	20	18	.....
Manistee.....	201	14	18	10	12	14	22	20	17	16	23	16	19	.....
Marquette.....	378	27	21	13	30	33	41	43	28	33	45	37	27	.....
Mason.....	163	14	14	6	12	17	14	9	17	16	13	14	17	.....
Mecosta.....	192	15	12	10	19	19	17	15	23	17	12	18	15	.....
Menominee.....	291	12	15	14	25	23	37	24	32	29	31	28	21	.....
Midland.....	110	7	5	7	12	8	9	8	10	10	9	10	15	.....
Missaukee.....	75	6	6	9	12	4	4	2	6	4	5	7	10	.....
Monroe.....	363	26	43	18	25	36	32	22	13	34	46	32	36	.....
Montcalm.....	321	20	26	19	22	29	27	19	27	25	33	38	36	.....
Montmorency.....	26	2	2	1	1	.....	5	4	3	1	.....	3	4	.....

TABLE I.—Concluded.—Marriages in Michigan, by months and counties, during the year 1900.

Counties.	Year, 1900.	Months, 1900.											
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec. Unk.
Muskegon.....	320	31	25	12	29	26	28	27	34	27	32	23	26
Newaygo.....	151	7	6	12	18	10	11	18	12	16	17	10	14
Oakland.....	356	29	20	39	37	12	32	21	22	26	42	35	41
Oceana.....	135	15	10	12	12	8	12	6	10	9	12	11	18
Ogemaw.....	72	2	4	4	10	7	4	9	4	5	9	6	8
Ontonagon.....	38	2	2	.....	3	4	7	1	7	1	6	3	2
Osceola.....	159	11	7	9	18	13	13	12	14	11	11	19	21
Oscoda.....	14	.....	1	1	2	1	.....	1	3	1	2	1	1
Otsego.....	54	7	6	4	7	1	5	4	4	5	3	2	6
Ottawa.....	331	19	13	20	39	28	26	24	31	27	41	30	33
Presque Isle..	86	7	3	4	8	15	5	5	7	5	9	15	2
Roscommon...	8	.....	.....	2	2	1	1	.....	.....	.....	1	1	.....
Saginaw.....	766	56	55	40	56	56	100	54	55	72	71	82	69
St. Clair.....	467	47	34	27	39	36	52	28	26	35	43	44	56
St. Joseph.....	204	19	15	17	12	16	23	8	10	21	18	24	21
Sanilac.....	280	19	21	16	32	20	17	17	17	22	36	31	32
Schoolcraft...	77	7	9	1	6	10	8	3	3	6	5	12	7
Shiawassee...	367	31	21	23	32	30	37	29	23	19	45	42	35
Tuscola.....	327	20	26	14	25	22	29	13	24	39	35	37	43
Van Buren....	287	15	10	17	17	21	17	34	24	27	38	27	40
Washtenaw...	325	23	19	30	20	20	24	15	22	32	45	36	39
Wayne.....	2,930	226	214	120	220	246	389	187	227	271	310	355	165
Wexford.....	194	18	12	14	22	14	11	19	19	12	14	17	22

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State and counties.	Total marriages, 1900.	Sex.	Number of persons married, by periods of age, 1900.															
			Under 20 years.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 to 84.	Unk.	
STATE.....	23,295	Total .. Males.. Fem...	6,600 389 6,280	18,478 8,843 9,635	10,774 6,994 3,780	4,416 3,022 1,394	2,358 1,535 823	1,329 836 493	922 587 335	561 358 203	439 285 154	299 186 113	195 140 55	86 70 16	40 35 5	16 14 2	8 1 7	
Alcona.....	36	Total .. Males.. Fem...	17 17	29 16 13	12 9 3	4 4	3 2 1	3 2 1	3 2 1	..... ..... .....	..... ..... .....	1 1 .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	
Alger.....	65	Total .. Males.. Fem...	20 2 18	52 22 30	26 17 9	15 14 1	12 6 6	1 1	3 2 1	1 1 .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	
Allegan.....	312	Total .. Males.. Fem...	91 4 87	270 131 139	124 86 38	48 36 12	25 15 10	21 10 11	10 7 4	7 5 2	7 4 2	6 5 2	5 4 2	6 4 4	5 1	3 6 1	1 2	
Alpena.....	188	Total .. Males.. Fem...	71 2 69	148 73 75	82 56 26	34 26 8	19 16 3	9 6 3	4 2	2 1	2 1 1	2 1 1	1 1 1	2 1 1	1 1	2 1 1	..... ..... .....	
Antrim.....	172	Total .. Males.. Fem...	69 2 67	120 63 57	74 53 21	34 23 11	19 12 7	12 10 2	8 3 5	3 2 1	1 1	2 2	1 1 1	1 1	1 ..... .....	..... ..... .....	..... ..... .....	
Arenac.....	96	Total .. Males.. Fem...	49 1 48	66 38 28	29 23 6	14 12 2	10 8 2	6 3 3	3 5 3	3 2	2 1	3 2 2	1 1 2	1 1	1	1 ..... .....	..... ..... .....	
Baraga.....	44	Total .. Males.. Fem...	11 11	33 13 20	20 14 6	13 9 4	5 5	5 3	1 2 .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	
Barry.....	212	Total .. Males.. Fem...	64 8 56	178 90 88	69 49 25	37 23 14	18 12 6	13 7 6	16 8 8	12 10 2	4 2 2	9 5 4	4 3 1	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	
Bay.....	557	Total .. Males.. Fem...	189 13 176	471 229 242	244 173 71	85 62 23	37 22 15	33 21 12	22 15 7	19 11 8	8 6 2	2 2	3 2 1	3 2 1	1 ..... .....	..... ..... .....	..... ..... .....	
Benzie.....	95	Total .. Males.. Fem...	32 32	79 40 39	40 30 11	15 8 7	6 5 1	9 6 3	3 2 1	1 1	2 1 1	1 1	1 1 .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	
Berrien.....	1,448	Total .. Males.. Fem...	358 28 330	1,071 499 572	661 387 274	365 239 126	213 134 79	105 71 34	56 33 13	31 22 9	16 9 7	9 7 2	6 5 1	1 1	2 1	1 1	1 1	
Branch.....	277	Total .. Males.. Fem...	86 8 78	209 110 99	120 78 42	45 28 17	26 15 14	15 7 8	9 5 4	14 8 6	11 6 5	12 8 3	3 2 1	3 2	3 1 .....	..... ..... .....	..... ..... .....	
Calhoun.....	509	Total .. Males.. Fem...	118 6 112	412 194 218	207 130 77	106 72 34	58 35 23	41 25 16	26 13 13	14 9 5	13 8 5	13 9 4	6 5 1	2 1 1	2 ..... .....	..... ..... .....	..... ..... .....	
Cass.....	212	Total .. Males.. Fem...	69 5 64	169 96 73	74 41 33	40 23 17	32 19 10	16 9 7	11 2 2	4 2 2	4 3 1	..... ..... .....	2 1 1	..... ..... .....				

State and counties.	Total marriages, 1900.	Sex.	Number of persons married, by periods of age, 1900.															
			Under 20 years.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 to 84.	Unk.	
STATE.....	23,295	Total .. Males.. Fem...	6,600 389 6,280	18,478 8,843 9,635	10,774 6,994 3,780	4,416 3,022 1,394	2,358 1,535 823	1,329 836 493	922 587 335	561 358 203	439 285 154	299 186 113	195 140 55	86 70 16	40 35 5	16 14 2	8 1 7	
Alcona.....	36	Total .. Males.. Fem...	17 17	29 16 13	12 9 3	4 4	3 2 1	3 2 1	3 2 1	..... ..... .....	..... ..... .....	1 1 .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	
Alger.....	65	Total .. Males.. Fem...	20 2 18	52 22 30	26 17 9	15 14 1	12 6 6	1 1	3 2 1	1 1 .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	
Allegan.....	312	Total .. Males.. Fem...	91 4 87	270 131 139	124 86 38	48 36 12	25 15 10	21 10 11	10 7 4	7 5 2	7 4 2	6 5 2	5 4 2	6 4 4	5 1	3 6 1	1 2	
Alpena.....	188	Total .. Males.. Fem...	71 2 69	148 73 75	82 56 26	34 26 8	19 16 3	9 6 3	4 2	2 1	2 1 1	2 1 1	1 1 1	1 1 1	2 1 1	..... ..... .....	..... ..... .....	
Antrim.....	172	Total .. Males.. Fem...	69 2 67	120 63 57	74 53 21	34 23 11	19 12 7	12 10 2	8 3 5	3 2 1	1 1	2 2	1 1 1	1	1 ..... .....	..... ..... .....	..... ..... .....	
Arenac.....	96	Total .. Males.. Fem...	49 1 48	66 38 28	29 23 6	14 12 2	10 8 2	6 3 3	8 5 3	3 2 2	2 1	2 1 2	3 1 2	1 1	1 ..... .....	..... ..... .....	..... ..... .....	
Baraga.....	44	Total .. Males.. Fem...	11 11	33 13 20	20 14 6	13 9 4	5 5	5 3	1 2 .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	
Barry.....	212	Total .. Males.. Fem...	64 8 56	178 90 88	69 44 25	37 23 14	18 12 6	13 7 6	16 8 8	12 10 2	4 2 2	9 5 4	4 3 1	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	
Bay.....	557	Total .. Males.. Fem...	189 13 176	471 229 242	244 173 71	85 62 23	37 22 15	33 21 12	22 15 7	19 11 8	8 6 2	2 2	3 2 1	3 1	1 ..... .....	..... ..... .....	..... ..... .....	
Benzie.....	95	Total .. Males.. Fem...	32 32	79 40 39	40 30 11	15 8 7	6 5 1	9 6 3	3 2 1	1 1	2 1 1	1 1	1 1 .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	
Berrien.....	1,448	Total .. Males.. Fem...	358 28 330	1,071 499 572	661 387 274	365 239 126	213 134 79	105 71 34	56 33 13	31 22 9	16 9 7	9 7 2	6 5 1	1 1	2 1	1	1	
Branch.....	277	Total .. Males.. Fem...	86 8 78	209 110 99	120 78 42	45 28 17	26 15 14	15 7 8	9 5 4	14 8 6	11 6 5	12 8 3	3 2 1	3 2 .....	..... ..... .....	..... ..... .....	..... ..... .....	
Calhoun.....	509	Total .. Males.. Fem...	118 6 112	412 194 218	207 130 77	106 72 34	58 35 23	41 25 16	26 13 13	14 9 5	13 8 5	13 9 4	6 5 1	2 1	2 ..... .....	..... ..... .....	..... ..... .....	
Cass.....	212	Total .. Males.. Fem...	69 5 64	169 96 73	74 41 33	40 23 17	32 19 10	16 9 7	11 2 2	4 3 2	..... ..... .....	..... ..... .....	2 1 1	..... .....	..... .....	..... .....	..... .....	
Charlevoix...	167	Total .. Males.. Fem...	59 1 58	126 60 66	75 53 22	46 37 9	14 9 5	7 3 5	2 1 1	1 1	3 3 .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	
Cheboygan...	129	Total .. Males.. Fem...	45 2 43	99 47 52	61 33 18	21 15 6	14 13 1	7 3 6	3 2 1	2 2	2 1 1	4 3 1	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	
Chippewa.....	200	Total .. Males.. Fem...	61 61	155 68 87	103 74 29	37 28 9	24 15 9	11 9 2	7 5 2	2 1 1	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	

TABLE II.—Continued.—Persons married in Michigan, by ages, counties and sex, during the year 1900.

Counties.	Total marriages, 1900.	Sex.	Number of persons married, by periods of age, 1900.															
			Under 20 years.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 and over.		
Clare.....	67	Total .. Males.. Fem....	33 3 30	49 27 22	23 19 4	8 6 2	6 3 3	4 2 2	2 2 2	1 1 2	4 2 2	2 1 1	2 1 1	.....	.....	.....		
Clinton.....	230	Total .. Males.. Fem....	65 4 61	187 95 92	116 66 50	42 28 14	14 11 3	11 7 4	8 5 3	6 5 1	5 4 1	4 3 1	1 1 1	.....	.....	.....		
Crawford.....	26	Total .. Males.. Fem....	11 11	14 8	10 8 2	8 6 2	4 3 1	1 1	2 2 2	2 2 .....	.....	.....	.....	.....	.....	.....		
Delta.....	248	Total .. Males.. Fem....	82 2 80	166 68 98	143 98 45	53 41 12	30 23 7	12 9 3	7 4 3	2 2	1 1 .....	.....	.....	.....	.....	.....		
Dickinson.....	194	Total .. Males.. Fem....	67 3 64	162 68 94	83 67 16	34 28 6	16 11 5	14 9 5	6 5 1	2 2	.....	3 2 1	.....	1 .....	.....	.....		
Eaton.....	310	Total .. Males.. Fem....	109 10 99	237 130 107	122 77 45	55 32 23	26 16 10	18 11 7	10 8 2	16 7 9	10 7 3	4 2 2	7 3 3	3 2	2 1	2 1		
Emmet.....	171	Total .. Males.. Fem....	63 3 60	134 71 63	75 48 27	30 22 8	18 11 7	9 6 3	4 3 1	6 4 2	2 2 .....	.....	.....	1	1 .....	.....		
Genesee.....	402	Total .. Males.. Fem....	118 10 108	288 143 145	187 124 63	78 46 32	38 24 14	22 8 14	23 13 10	20 14 6	17 12 5	9 4 5	3 3 .....	.....	.....	1 1		
Gladwin.....	57	Total .. Males.. Fem....	33 1 32	35 23 12	20 15 5	6 5	4 4	7 4 3	2 2 2	2 2	2 1 1	3 2 .....	.....	.....	.....	.....		
Gogebie.....	181	Total .. Males.. Fem....	50 3 47	147 60 87	104 78 26	29 20 9	14 9 5	8 5 3	4 3 1	3 2 1	3 2 .....	.....	.....	.....	.....	.....		
Gd. Traverse..	237	Total .. Males.. Fem....	75 3 72	183 95 88	92 60 32	48 30 18	24 14 10	23 15 8	7 6 5	8 5 3	6 3 3	6 4 2	1 1	1 1 .....	.....	.....		
Gratiot.....	316	Total .. Males.. Fem....	125 6 119	279 156 123	88 61 27	37 29 8	25 15 10	20 13 7	13 8 5	10 5 3	7 4 3	14 9 5	8 5 3	3 2	1 1	2 1		
Hillsdale.....	313	Total .. Males.. Fem....	102 9 93	267 140 127	121 76 45	44 31 13	30 17 13	15 13 2	14 9 5	14 8 6	3 .. 3	5 4 1	5 4 1	5 4 1	1 .....	.....		
Houghton.....	752	Total .. Males.. Fem....	186 4 182	632 287 345	416 256 154	165 123 42	59 44 15	25 19 6	15 11 4	8 5 3	.....	1 1	1 1	1	1 .....	.....		
Huron.....	276	Total .. Males.. Fem....	65 1 64	241 100 141	135 91 44	52 45 7	21 14 7	11 8 3	10 7 3	6 4 2	4 1 3	2 1 1	4 1 .....	.....	1 .....	.....		
Ingham.....	375	Total .. Males.. Fem....	83 6 77	296 131 165	193 120 73	67 47 20	34 24 10	20 14 6	22 13 9	11 10 5	17 10 7	4 2 2	2 1 1	1	1 .....	.....		
Ionia.....	312	Total .. Males.. Fem....	96 9 87	257 127 130	137 87 50	48 36 12	28 18 10	20 11 9	11 6 5	11 6 2	9 6 5	3 2 1	2 2	2 1	2 1			
Iosco.....	91	Total .. Males.. Fem....	34 2 32	67 33 34	45 35 10	18 16 8	8 4 1	2 1	1 1	3 3		1 1	1 1	2				

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TABLE II.—Continued.—Persons married in Michigan, by ages, counties and sex, during the year 1900.

Counties.	Total marriages, 1900.	Sex.	Number of persons married, by periods of age, 1900.																Unk.
			Under 20 years.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 to 84.			
Iron.....	103	Total .. Males.. Fem...	30 1 29	88 40 48	50 35 15	17 12 5	12 9 3	6 4 2	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1		
Isabella.....	219	Total .. Males.. Fem...	84 3 81	179 97 82	85 63 22	25 14 11	21 15 6	13 9 4	5 3 2	12 6 6	11 7 4	1 1 1	2 1 1	1 1 1	1 1 1	1 1 1	1 1 1		
Jackson.....	474	Total .. Males.. Fem...	113 10 103	376 186 190	223 129 94	103 61 42	44 27 17	29 18 11	26 18 8	10 8 2	8 6 4	6 4 2	4 3 2	5 4 2	2 1 1	2 1 1	1 1 1		
Kalamazoo.....	435	Total .. Males.. Fem...	97 9 88	351 160 191	168 111 57	114 72 42	46 21 25	25 15 10	28 17 11	18 13 5	12 8 4	5 4 1	2 1 1	2 1 1	2 1 1	1 1 1	1 1 1		
Kalkaska.....	68	Total .. Males.. Fem...	35 2 33	48 33 15	23 16 7	11 6 5	8 4 4	3 2 1	1 1 1	2 1 1	1 1 1	1 1 1	3 2 1	1 1 1	1 1 1	1 1 1	1 1 1		
Kent.....	1,294	Total .. Males.. Fem...	332 27 305	1,064 506 558	598 364 234	228 159 69	132 91 41	92 52 40	58 38 20	23 16 7	32 21 11	13 7 6	12 7 2	2 1 1	2 1 1	2 1 1	1 1 1		
Keweenaw.....	22	Total .. Males.. Fem...	7 7	15 6 9	13 11 2	4 2 2	..... ..... .....	2 2 .....	..... ..... .....	1 1	2 1	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....		
Lake.....	58	Total .. Males.. Fem...	33 32	39 25 14	25 17 8	6 2	7 6 1	3 2 1	3 3 .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....		
Lapeer.....	242	Total .. Males.. Fem...	88 7 81	196 100 96	89 62 27	39 26 13	25 16 9	12 8 4	11 8 3	8 4 4	4 4 3	5 2 3	6 4 2	1 1 1	1 1 1	1 1 1	1 1 1		
Leelanau.....	81	Total .. Males.. Fem...	30 29	58 28 30	37 26 11	12 9 3	13 8 5	6 5 1	2 1 1	2 2 1	1 1 1	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....		
Lenawee.....	464	Total .. Males.. Fem...	133 10 123	389 199 190	203 132 71	61 39 22	52 28 24	23 14 9	28 16 12	11 10 7	11 4 3	4 1 2	7 5 3	5 5 2	1 1 1	1 1 1	1 1 1		
Livingston.....	152	Total .. Males.. Fem...	40 37	131 64 67	62 42 20	23 15 8	11 5 6	8 6 2	12 7 5	7 4 3	2 1 1	4 1 1	4 2 2	1 1 1	1 1 1	1 1 1	1 1 1		
Luce.....	25	Total .. Males.. Fem...	7 7	15 5 10	13 9 4	4 4	6 3 3	4 3 1	..... ..... .....	1 1 .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....		
Mackinac.....	68	Total .. Males.. Fem...	23 22	51 24 27	31 23 8	18 13 5	4 2 2	2 2	2 2 2	3 2 1	..... ..... .....	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1		
Macomb.....	245	Total .. Males.. Fem...	59 3 56	190 87 103	129 79 50	53 36 17	22 16 6	15 11 4	5 4 1	3 2 2	4 2 2	3 1 2	4 3 2	1 1 1	1 1 1	1 1 1	1 1 1		
Manistee.....	201	Total .. Males.. Fem...	65 3 62	156 66 90	109 82 27	35 24 11	15 11 4	11 5 6	7 3 1	3 1	1 1 .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....		
Marquette.....	378	Total .. Males.. Fem...	110 6 104	306 136 170	203 143 60	77 52 25	34 22 12	18 14 4	8 5 3	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....		
Mason.....	163	Total .. Males.. Fem...	51 1 50	125 60 65	73 52 21	33 23 10	12 9 3	8 6 5	9 3 3	5 2 2	2 2 2	4 2 2	2 1 1	2 1 1	2 1 1	1 1 1	1 1 1		

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TABLE II.—Concluded.—Persons married in Michigan, by ages, counties and sex, during the year 1900.

Counties.	Total marriages, 1900.	Sex.	Number of persons married, by periods of age, 1900.															
			Under 20 years.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 to 84.	Unk.	
Roscommon....	8	{ Total .. Males.. Fem...	4 2 4	4 2 2	4 4 2	3 1 2	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1		
Saginaw.....	766	{ Total .. Males.. Fem...	175 10 165	637 287 350	394 253 141	153 104 49	80 54 26	27 16 11	24 14 10	14 7 7	15 11 4	4 3 1	3 1 2	3 1 2	1 3 2	1 2 1		
St. Clair.....	467	{ Total .. Males.. Fem...	120 7 113	351 170 181	256 157 99	86 59 27	32 22 10	26 14 12	29 17 12	9 5 4	11 6 7	6 4 1	4 5 1	1 4 2	1 1 1	2 2 1		
St. Joseph.....	204	{ Total .. Males.. Fem...	58 9 49	163 78 85	83 54 29	33 20 13	22 14 8	20 9 11	12 9 3	5 9 3	5 2 3	3 2 1	3 1 2	1 1 2	1 1 1	1 1 1		
Sanilac.....	280	{ Total .. Males.. Fem...	96 1 95	239 122 117	114 81 33	40 33 7	25 13 12	10 7 5	7 10 5	11 2 5	5 5 3	5 2 2	5 3 1	2 4 1	2 2 1	1 1 1		
Schoolcraft....	77	{ Total .. Males.. Fem...	25 2 23	63 27 36	42 31 11	11 8 3	9 5 4	1 1 2	2 2 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1		
Shiawassee.....	367	{ Total .. Males.. Fem...	108 5 103	305 153 152	136 90 46	69 47 22	31 21 10	24 15 9	19 13 6	12 3 9	3 2 1	11 6 5	10 7 3	4 4 1	1 1 1	1 1 1		
Tuscola.....	327	{ Total .. Males.. Fem...	124 7 117	271 137 134	139 94 45	53 44 9	18 14 4	18 10 8	8 7 1	6 4 2	5 3 2	5 2 3	2 2 1	2 2 1	1 1 1	2 1 1		
Van Buren.....	287	{ Total .. Males.. Fem...	113 10 103	214 119 95	119 77 42	46 29 17	24 15 9	15 8 7	12 8 4	5 4 1	9 6 3	7 4 4	3 2 1	5 5 1	1 1 1	1 1 1		
Washtenaw.....	325	{ Total .. Males.. Fem...	50 4 46	229 87 142	183 115 68	91 57 34	37 23 14	17 9 8	16 13 3	7 6 4	8 3 2	6 3 3	3 3 1	3 3 1	3 3 1	3 3 1		
Wayne.....	2,930	{ Total .. Males.. Fem...	524 19 505	2,338 1,090 1,338	1,614 991 623	612 400 212	364 244 120	154 103 51	110 69 41	57 38 19	46 33 13	22 18 4	13 10 3	2 1 1	3 3 1	1 1 1		
Wexford.....	194	{ Total .. Males.. Fem...	67 2 65	142 73 69	88 59 29	34 23 11	18 12 6	13 8 5	8 4 4	3 3 1	4 3 1	6 3 2	3 2 1	1 1 1	1 1 1	1 1 1		

TABLE III.—Marriages and persons married in Michigan, by nativity and counties, during the year 1900.

State and counties.	Total marriages, 1900.	(a) Marriages, by nativity, 1900.										(b) Persons married, by nativity, 1900.					
		Both native born.	Both foreign born.	Foreign male, native female.	Foreign female, native male.	Female unk.		Male unk.		Both unk.	Native born.		Foreign born.		Unk.		
						Native.	Foreign.	Native.	Foreign.		Males.	Females.	Males.	Females.	Males.	Females.	
																	Male.	Female.
STATE.....	23,395	14,661	3,154	3,066	1,911	407	80	9	3	10	16,979	17,730	6,294	5,068	22	497	
Alcona.....	36	14	10	8	4	.....	.....	.....	.....	.....	18	22	18	14	.....	.....	
Alger.....	65	21	16	18	8	1	1	.....	.....	.....	30	39	35	24	.....	2	
Allegan.....	312	278	6	13	15	.....	.....	.....	.....	.....	293	291	19	21	.....	.....	
Alpena.....	188	84	34	44	21	1	4	.....	.....	.....	106	128	82	55	.....	5	
Antrim.....	172	91	14	29	20	15	3	.....	.....	.....	126	120	46	34	.....	18	
Arenac.....	96	42	12	23	10	5	4	.....	.....	.....	57	65	39	22	.....	9	
Baraga.....	44	21	9	9	5	.....	.....	.....	.....	.....	26	30	18	14	.....	.....	
Barry.....	212	179	2	14	3	13	1	.....	.....	.....	195	193	17	5	.....	14	
Bay.....	557	266	80	115	92	2	.....	1	1	.....	360	382	195	173	2	2	
Benzie.....	95	73	5	9	7	1	.....	.....	.....	.....	81	82	14	12	.....	1	
Berrien.....	1,448	964	146	187	122	48	8	1	2	.....	1,134	1,122	311	270	3	56	
Branch.....	277	253	3	5	5	11	.....	.....	.....	.....	269	258	8	8	.....	11	
Calhoun.....	569	439	7	39	20	3	1	.....	.....	.....	462	478	47	27	.....	4	
Cass.....	212	187	3	10	5	7	.....	.....	.....	.....	199	197	13	8	.....	7	
Charlevoix.....	167	109	4	25	13	12	1	1	.....	2	134	135	30	17	3	15	
Cheboygan.....	129	74	19	22	13	1	.....	.....	.....	.....	88	96	41	32	.....	1	
Chippewa.....	200	41	90	31	33	3	2	.....	.....	.....	77	72	123	123	.....	5	
Clare.....	67	39	6	11	5	6	.....	.....	.....	.....	50	50	17	11	.....	6	
Clinton.....	230	199	1	16	11	3	.....	.....	.....	.....	213	215	17	12	.....	3	
Crawford.....	26	15	5	2	3	1	.....	.....	.....	.....	19	17	7	8	.....	1	
Delta.....	248	80	85	63	16	3	1	.....	.....	.....	99	143	149	101	.....	4	
Dickinson.....	194	38	112	34	8	1	1	.....	.....	.....	47	72	147	120	.....	2	
Eaton.....	310	289	1	12	7	1	.....	.....	.....	.....	297	301	13	8	.....	1	
Emmet.....	171	124	6	22	19	.....	.....	.....	.....	.....	143	146	28	25	.....	.....	
Genesee.....	402	323	4	51	22	2	.....	.....	.....	.....	347	374	55	26	.....	2	
Gladwin.....	57	35	8	9	5	.....	.....	.....	.....	.....	40	44	17	13	.....	.....	
Gogebic.....	181	26	134	10	11	.....	.....	.....	.....	.....	37	36	144	145	.....	.....	
Gd. Traverse.....	237	167	9	37	16	8	.....	.....	.....	.....	191	204	46	25	.....	8	
Gratiot.....	316	260	1	19	15	20	1	.....	.....	.....	295	279	21	16	.....	21	
Hillsdale.....	313	274	3	10	4	20	2	.....	.....	.....	298	284	15	7	.....	22	
Houghton.....	752	209	383	116	43	.....	1	.....	.....	.....	252	325	500	426	.....	1	
Huron.....	276	124	51	59	37	2	2	1	.....	.....	163	184	112	88	1	4	
Ingham.....	375	317	9	25	16	7	1	.....	.....	.....	340	342	35	25	.....	8	
Ionia.....	312	258	6	16	13	17	2	.....	.....	.....	288	274	24	19	.....	19	
Iosco.....	91	47	13	17	13	1	.....	.....	.....	.....	61	64	30	26	.....	1	
Iron.....	103	24	62	14	3	.....	.....	.....	.....	.....	27	38	76	65	.....	.....	
Isabella.....	219	167	6	22	17	5	1	.....	.....	1	189	189	29	23	1	7	
Jackson.....	474	375	17	41	33	8	.....	.....	.....	.....	416	416	58	50	.....	8	
Kalamazoo.....	435	322	19	39	22	28	1	2	.....	2	372	363	59	41	4	31	
Kalkaska.....	68	62	1	4	1	.....	.....	.....	.....	.....	63	66	5	2	.....	.....	
Kent.....	1,294	818	174	175	125	2	.....	.....	.....	.....	945	993	349	299	.....	2	
Keweenaw.....	22	8	5	1	.....	.....	.....	.....	.....	.....	9	13	13	9	.....	.....	
Lake.....	58	36	5	11	6	.....	.....	.....	.....	.....	42	47	16	11	.....	.....	
Lapeer.....	242	177	12	35	17	1	.....	.....	.....	.....	195	212	47	29	.....	1	
Leelanau.....	81	55	7	11	8	.....	.....	.....	.....	.....	63	66	18	15	.....	.....	
Lenawee.....	464	390	5	29	17	20	2	1	.....	.....	427	420	36	22	1	22	
Livingston.....	152	123	2	12	10	4	1	.....	.....	.....	137	135	15	12	.....	5	
Luce.....	25	6	11	4	3	1					10	10	15	14		1	
Mackinac.....	68	28	11	16	8	4	1				40	44	28	19		5	
Macomb.....	245	182	12	32	18	1					201	214	44	30		1	

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TABLE III.—Concluded.—Marriages and persons married in Michigan, by nativity and counties, during the year 1900.

Counties.	Total marriages, 1900.	(a) Marriages, by nativity, 1900.								(b) Persons married, by nativity, 1900.					
		Both native born.	Both foreign born.	Foreign male, native female.	Foreign female, native male.	Female unk.		Male unk.		Native born.		Foreign born.		Unk.	
						Male.		Female.		Mates.	Females.	Mates.	Females.	Mates.	Females.
						Native.	Foreign.	Native.	Foreign.						
Manistee.....	201	106	39	38	18	...	...	...	...	124	144	77	57	...	...
Marquette.....	378	106	167	71	31	1	2	...	...	138	177	240	198	...	3
Mason.....	163	93	28	31	10	1	...	...	...	104	124	59	38	...	1
Mecosta.....	192	150	14	16	11	...	...	...	...	161	166	30	25	1	1
Menominee.....	291	127	69	53	27	11	4	...	...	165	180	126	96	...	15
Midland.....	110	77	11	13	9	...	...	...	...	86	90	24	20	...	...
Missaukee.....	75	39	13	11	12	...	...	...	...	51	50	24	25	...	...
Monroe.....	363	319	4	23	11	5	1	...	...	335	342	28	15	...	6
Montcalm.....	321	252	11	40	10	6	1	1	...	268	293	52	21	1	7
Montmorency....	26	13	3	3	5	1	1	...	...	19	16	7	8	...	2
Muskegon.....	320	193	51	48	28	...	...	...	...	221	241	99	79	...	...
Newaygo.....	151	124	9	14	4	...	...	...	...	128	138	23	13	...	...
Oakland.....	356	240	20	37	29	23	7	...	...	292	277	64	49	...	30
Oceana.....	135	112	6	5	6	6	...	...	...	124	117	11	12	...	6
Ogemaw.....	72	35	11	9	10	5	2	...	...	50	44	22	21	...	7
Ontonagon.....	38	17	11	7	3	...	...	...	...	20	24	18	14	...	...
Osceola.....	159	104	9	25	14	6	...	...	1	124	129	34	23	1	7
Oscoda.....	14	12	1	...	...	...	1	...	...	12	12	2	1	...	1
Otsego.....	54	24	7	14	6	2	1	...	...	32	38	22	13	...	3
Ottawa.....	331	220	29	49	27	4	1	...	1	251	269	79	56	1	6
Presque Isle.....	86	52	8	16	5	1	4	...	...	58	68	28	13	...	5
Roscommon.....	8	5	2	...	...	1	...	...	...	6	5	2	2	...	1
Saginaw.....	766	476	77	122	89	1	1	...	...	566	598	200	166	...	2
Sanilac.....	280	128	43	77	29	3	...	...	...	160	205	120	72	...	3
Schoolcraft.....	77	22	29	17	6	1	2	...	...	29	39	48	35	...	3
Shiawassee.....	367	298	4	31	29	4	1	...	...	331	329	36	33	...	5
St. Clair.....	467	230	76	95	58	4	4	...	...	292	325	175	134	...	8
St. Joseph.....	204	185	1	13	5	...	...	...	...	190	198	14	6	...	...
Tuscola.....	327	226	19	48	21	9	2	1	...	256	275	69	40	2	12
Van Buren.....	287	261	3	13	10	...	...	...	...	271	274	16	13	...	...
Washtenaw.....	325	243	14	29	27	11	...	...	1	281	272	43	41	1	12
Wayne.....	2,930	1,314	688	523	402	1	2	...	...	1,717	1,837	1,213	1,090	...	3
Wexford.....	194	125	28	19	10	11	1	...	...	146	144	48	38	...	12

TABLE IV.—Marriages in Michigan, by ages of males and females married, during the year 1900.

Ages of males married, 1900.	Ages of females married, 1900.															Total males.	Per cent of males at each age.
	Under 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 to 74.	75 to 79.	80 +	Unk.		
Under 20.....	321	64	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	389	1.7
20 to 24.....	3,820	4,518	455	39	0	.....	1	.....	1	.....	.....	.....	.....	.....	3	8,843	38.0
25 to 29.....	1,588	3,308	1,700	236	53	15	2	1	.....	.....	.....	.....	.....	.....	1	6,004	30.0
30 to 34.....	377	1,104	913	475	108	32	12	.....	.....	.....	.....	.....	.....	.....	1	3,022	13.0
35 to 39.....	122	343	443	300	251	53	18	4	1	.....	.....	.....	.....	.....	.....	1,335	6.6
40 to 44.....	32	130	145	182	174	112	40	10	3	1	.....	.....	.....	.....	1	836	3.6
45 to 49.....	8	48	78	96	125	116	82	26	7	.....	1	.....	.....	.....	.....	587	2.5
50 to 54.....	8	15	22	36	55	72	71	54	16	4	4	1	.....	.....	.....	358	1.5
55 to 59.....	3	7	13	20	27	55	63	45	36	13	3	.....	.....	.....	.....	285	1.2
60 to 64.....	1	1	4	4	16	22	26	34	43	27	7	1	.....	.....	.....	186	0.8
65 to 69.....	.....	.....	1	4	3	9	16	22	26	35	20	2	2	.....	.....	140	0.6
70 to 74.....	.....	1	1	.....	4	6	4	3	12	22	10	5	1	1	.....	70	0.3
75 to 79.....	.....	.....	1	2	1	1	.....	3	6	8	6	5	2	.....	.....	35	0.2
80 and over.....	.....	.....	.....	.....	.....	.....	.....	1	3	3	4	2	.....	1	.....	14	0.1
Unknown.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	.....
Total females..	6,280	9,635	5,780	1,394	823	493	335	203	154	113	55	16	5	2	7	23,295	
Per cent.....	27.0	41.4	16.2	6.0	3.5	2.1	1.4	0.9	0.7	0.5	0.2	0.1				100.0	

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TABLE V.—Probate marriages in Michigan, by ages of males and females married, during the year 1900.

Ages of males married by judges of probate, 1900.	Ages of females married by judges of probate, 1900.												Total males.	Per cent of males at each age.
	Ages under 20 years.						Under 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.		
	14.	15.	16.	17.	18.	19.								
Ages under 20 years.....	16.....	1	1	1			3						3	7.5
	17.....				1	1	2						2	5.0
	18.....	1	1		1	1	4						4	10.0
	19.....	1	1				2						2	5.0
Under 20.....		3	3	1	2	2	11						11	27.5
20 to 24.....		2	10	3	2		18	2					20	50.0
25 to 29.....			1				2	2	1				5	12.5
30 to 34.....									1				1	2.5
35 to 39.....									1				1	2.5
40 to 44.....									1				1	2.5
45 to 49.....														
50 to 54.....												1	1	2.5
Total females.....		5	14	4	4	2	31	4	4			1	40	
Per cent.....		12.5	35.0	10.0	10.0	5.0	77.5	10.0	10.0			2.5		100.0

NOTE.—Figures in bold face indicate marriages at illegal ages, under the general laws of the State, for one or both parties. The 40 marriages performed by judges of probate in Michigan during the year 1900 were distributed by months as follows:—January, 6; February, 2; March, 5; April, 5; May, 4; June, 3; July, 4; August, 2; September, 3; October, 1; November, 3; December, 2. All were white with the exception of one couple. By nativity, there were 37 couples both native born; 1 couple both foreign born; 2 couples with foreign male and native female. These marriages were returned from 23 counties, the largest number reported from a county being 5. They are not included in the preceding tables of marriages.

TABLES
RELATING TO
DIVORCES
AND
CAUSES OF DIVORCE
IN
MICHIGAN
DURING THE
YEAR 1900.

PRIMARY TABLES RELATING TO DIVORCES AND CAUSES OF DIVORCE IN MICHIGAN DURING THE YEAR 1900.

TABLE I.—Divorce business in Michigan, by counties, during the year 1900, showing, according to the "Summaries" filed by the county clerks, the number of bills for divorce pending at the beginning and end of the year, number filed during the year, number withdrawn or otherwise disposed of, number contested, and the number of divorces granted and refused.

TABLE II.—Divorces in Michigan, by counties and sex of complainant, during the year 1900, showing place of marriage, number of children in family, and duration of marriage before divorce.

TABLE III.—Causes of divorce in Michigan, by sex of complainant, during the year 1900, showing place of marriage, number of children in family, and duration of marriage before divorce.

NOTE.—*Secondary tables*, containing divorce rates, etc., will be found on preceding pages of this Report, together with the descriptive text.

TABLE I.—Divorce business in Michigan, by counties, during the year 1900, showing, according to the "Summaries" filed by the county clerks, the number of bills for divorce pending at the beginning and end of the year, number filed during the year, number withdrawn or otherwise disposed of, number contested, and the number of divorces granted and refused.

State and counties.	Number of bills pending on January 1, 1900.	Number of bills filed during 1900.	Number of divorces granted, 1900.	Number of divorces refused, 1900.	Number of cases withdrawn, etc., 1900.	Number of bills pending on December 31, 1900.	Total number of cases, 1900.	Number of cases contested, 1900.
STATE.....	3,397	3,477	2,435	29	520	3,890	6,874	451
Alcona.....		2	2				2	
Alger.....	9	8	5		1	11	17	
Allegan.....	60	53	43			79	113	7
Alpena.....	25	14	8		1	30	39	
Antrim.....	22	32	22			32	54	
Arenac.....	12	5	5		2	10	17	1
Baraga.....	0	1	0	0	0	1	1	
Barry.....	46	52	42			56	98	29
Bay.....	51	56	38	1	1	67	107	7
Benzie.....	3	20	10			13	23	
Berrien.....	70	89	59		1	99	159	
Branch.....	51	50	31		16	54	101	
Calhoun.....	125	106	94	2		135	231	16
Cass.....	14	26	18		2	20	40	
Charlevoix.....	29	21	8			42	50	5
Cheboygan.....	13	19	8			24	32	1
Chippewa.....	25	22	5	1	2	39	47	7
Clare.....	10	10	9		1	10	20	
Clinton.....	76	45	27		5	89	121	18
Crawford.....	3	5	4		1	3	8	
Delta.....	18	13	12			19	31	
Dickinson.....	5	11	7		2	7	16	
Eaton.....	49	61	52	1	10	47	110	
Emmet.....	32	27	26			33	59	
Genesee.....	26	75	53	2	3	43	101	4
Gladwin.....	3	4	1		2	4	7	
Gogebic.....	33	6	2			37	39	
Grand Traverse.....	37	40	31			46	77	
Gratiot.....	41	56	35		2	60	97	
Hillsdale.....	25	53	35	2	4	37	78	4
Houghton.....	17	26	11		2	30	43	1
Huron.....	6	15	7		2	12	21	3
Ingham.....	62	52	31	3	3	77	114	11
Ionia.....	84	54	44		1	93	138	11
Iosco.....	4	9	6			7	13	
Iron.....	5	11	6		1	9	16	
Isabella.....	32	24	25		2	29	56	
Jackson.....	82	118	79	2	5	114	200	29
Kalamazoo.....	20	124	68		10	66	144	36
Kalkaska.....	16	21	7		3	27	37	
Kent..... { Superior.....	278	28	22	2	252	30	306	6
Kent..... { Circuit.....	245	281	191		7	328	526	
Keweenaw.....		1	1				1	
Lake.....	8	5	4		1	8	13	1
Lapeer.....	39	39	35			43	78	9
Leelanau.....	8	4	7			5	12	
Lenawee.....	102	64	58		3	105	166	3
Livingston.....	11	31	17		4	21	42	2
Luce.....	8	6	2	1	1	10	14	
Mackinac.....	8	2	4		1	5	10	1

* See note at end of Table.

DIVORCES.

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TABLE I.—Concluded.—Divorce business in Michigan, by counties, during the year 1900.

Counties.	Number of bills pending on January 1, 1900.	Number of bills filed during 1900.	Number of divorces granted, 1900.	Number of divorces refused, 1900.	Number of cases with- drawn, etc., 1900.	Number of bills pending on December 31 1900.	Total number of cases, 1900.	Number of cases con- tested, 1900.
Macomb.....	55	46	24		1	76	101	3
Manistee.....	29	7	5			31	36	
Marquette.....	18	17	7			28	35	1
Mason.....	8	9	7	1		9	17	1
Mecosta.....	27	28	20	4	2	29	55	3
Menominee.....	22	15	16	1	4	16	37	4
Midland.....	12	10	8		1	13	22	6
Missaukee.....	18	13	10		5	16	31	
Monroe.....	32	26	23		3	32	58	
Montcalm.....	25	35	42		2	16	60	7
Montmorency.....	1	8	4			5	9	
Muskegon.....	61	60	41		25	55	121	7
Newaygo.....	7	13	14			6	20	
Oakland.....	26	56	37		5	40	82	
Oceana.....	38	27	24	1	1	39	65	10
Ogemaw.....	2	9	4	1		6	11	
Ontonagon.....		3	3				3	
Osceola.....	11	13	11	1	2	10	24	
Oscoda.....		2	1			1	2	
Otsego.....	2	1	3				3	
Ottawa.....	35	18	18	1	1	31	51	3
Presque Isle.....	2	10	4			8	12	
Roscommon.....	2	4	1			5	6	
Saginaw.....	129	146	110			165	275	9
St. Clair.....	170	79	39		3	207	249	17
St. Joseph.....	30	27	12			45	57	
Sanilac.....	18	20	15			23	34	6
Schoolcraft.....	10	14	12		3	9	24	5
Shiawassee.....	59	103	70		35	57	162	
Tuscola.....	54	41	33		2	60	95	8
Van Buren.....	49	64	46		4	63	113	4
Washtenaw.....	30	77	52	1	3	51	107	
Wayne.....	321	532	382	1	64	406	853	149
Wexford.....	146	49	20			175	195	5

* The total number of divorces granted during the year 1900, according to the "Summaries" returned by the county clerks, was 2,435 or 17 more than the number compiled from the schedules also returned by the county clerks and presented in Tables II and III. Some of these additional divorces may be those granted and not recorded on account of non-payment of fees, but the discrepancy is also due in part to carelessness of the county clerks in filling out their returns.

State and counties.	Sex of complain-ants.	Complainants in divorces granted, 1900.	Place of marriage.						Number of chil-							
			Michigan.	Ohio, Ind-iana, Wis-consin.	Other states.	Canada.	Other foreign coun-tries.	Unknown.	0.	1.	2.	3.	4.	5.	6.	
STATE.....	Total..	2,418	1,934	92	167	169	31	34	1,691	629	356	149	81	44	19	
	Males..	678	602	35	69	49	13	10	342	134	104	49	26	9	1	
	Fem... 1,740	1,432	57	98	111	18	24	749	486	254	190	55	35	15		
Alcona.....	Total..	2	1			1			1					1		
	Males..	2	1			1			1					1		
	Fem...															
Alger.....	Total..	5	3		1	1			2	2				1		
	Males..	1	1						1							
	Fem... 4	2		1	1			1	2					1		
Allegan.....	Total..	43	34	5	3	1			24	7	7	2	1	1	1	
	Males..	13	11	2					11			1	1			
	Fem... 30	23	3	3	1			13	7	7	1			1	1	
Alpena.....	Total..	8	8						2	3	2		1			
	Males..	12	12						1							
	Fem... 6	6						1	3	2						
Antrim.....	Total..	20	17			2	1		6	9	2	1				
	Males..	5	3							4	1					
	Fem... 15	14				1		6	5	1	1					
Arenac.....	Total..	5	4		1				2	1	1			1		
	Males..	2	2													
	Fem... 3	2		1					1	1				1		
Baraga.....	Total..	0														
	Males..															
	Fem...															
Barry.....	Total..	42	37		2	1		2	23	10	5	2	1			
	Males..	14	12			1		1	9		3	1	1			
	Fem... 28	25		2				1	14	10	2	1				
Bay.....	Total..	38	29	2	3	4			18	9	6	3				
	Males..	11	8		2	1			5	4	1					
	Fem... 27	21	2	1	3			13	5	5	3					
Benzie.....	Total..	10	8	1	1				4		4	1				
	Males..	2	2						2							
	Fem... 8	6	1	1				2		4	1					
Berrien.....	Total..	56	36	8	6		3	3	26	14	5	4	2	1	1	
	Males..	14	10	1	2			1	6	4	2	1	1		1	
	Fem... 42	26	7	4		3	2	20	10	3	3	1	1	1	1	
Branch.....	Total..	31	26		5				10	11	7	2	1			
	Males..	10	8		2				4	2	2	1	1			
	Fem... 21	18		3				6	9	5	1					
Calhoun.....	Total..	94	84	4	3	2	1		45	32	8	4	4		1	
	Males..	31	27	2			1		15	8	6	1	1			

DIVORCES.

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1900, showing place of marriage, number of children in family, and duration of marriage divorce.

Children in family.							Duration of marriage before divorce.																			
7.	8.	9.	10.	11.	16.	Unknown.	Under 1 year.	1.	2.	3.	4.	Under 5 years.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	Unknown.		
1459	1028	734	333	111	111	20218	642341	1262799	16755112	16748119	16142119	685195400	665186479	406115291	29267225	16445119	1073473	512031	231013	16412	1111	111	111	725		
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	22	..	..	..	..	..	..	..	..	..	
..	..	..	..	..	..	..	..	..	..	..	22	22	11	..	11	11	..	..	..	..	..	..	..	..	..	
..	..	..	..	..	..	..	..	..	..	..	22	22	11	..	11	11	..	..	..	..	..	..	..	..	..	
..	..	..	..	..	..	..	..	..	42	53	22	11556	14594	5144	514	12	22	211	11	22	..	..	..	..		
..	..	..	..	..	..	..	..	..	22	22	22	66	99	11	312	..	..	..	..	..	..	..	..	..	..	
..	..	..	..	..	..	..	..	..	..	..	11	11	31	11	312	..	..	..	..	..	..	..	..	..	..	
..	..	..	..	..	..	..	..	..	..	..	11	11	11	11	11	..	..	..	..	..	..	..	..	..	..	
11	..	..	..	..	..	11	11	..	22	..	31	61	74	41	..	33	..	..	..	..	..	..	..	..	..	
11	..	..	..	..	..	11	11	..	22	..	21	51	34	33	..	33	..	..	..	..	..	..	..	..	..	
..	..	..	..	..	..	..	..	..	11	..	11	21	..	11	11	..	11	..	..	..	..	..	..	..	..	
..	..	..	..	..	..	..	..	..	11	..	11	11	..	11	11	..	11	..	..	..	..	..	..	..	..	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
..	..	11	..	..	..	..	..	11	73	22	22	124	1019	523	642	615	321	..	..	..	..	..	..	..	..	
..	..	11	..	..	..	..	..	11	42	..	22	84	93	23	22	25	21	..	..	..	..	..	..	..	..	
11	11	..	..	..	..	11	22	22	12	12	28	113	103	23	22	21	21	11	11	..	..	..	..	..	..	
11	11	..	..	..	..	11	22	22	..	11	11	63	87	72	21	11	11	11	11	..	..	..	..	..	..	
11	..	..	..	..	..	..	11	..	..	..	..	16	22	..	..	11	11	11	..	..	..	..	..	..	..	
11	..	..	..	..	..	..	11	..	..	..	..	14	22	..	..	11	11	11	..	..	..	..	..	..	..	
11	..	..	..	..	..	22	11	61	62	23	18	19	72	22	62	22	11	..	..	..	..	..	..	11	..	
11	..	..	..	..	..	22	11	51	42	22	14	13	52	22	42	22	11	..	..	..	..	..	..	11	..	
..	..	..	..	..	..	..	11	42	..	..	27	73	73	44	22	21	11	11	..	..	..	..	..	..	11	
..	..	..	..	..	..	..	11	22	..	..	14	44	34	44	42	21	11	11	..	..	..	..	..	..	11	
..	..	..	..	..	..	..	11	22	..	..	14	44	34	44	42	21	11	11	..	..	..	..	..	..	11	
..	..	..	..	..	..	73	14	94	1412	614	3710	2411	716	156	42	32	21	22	..	..	..	..	..	..	..	
..	..	..	..	..	..	43	14	54	12	55	2713	1313	66	1010	22	22	11	12	..	..	..	..	..	..	..	
..	..	..	..	..	..	11	..	11	2..	..	48	83	31	11	11	11	11	..	..	..	..	..	..	..	..	
..	..	..	..	..	..	11	..	11	2..	..	48	35	12	11	11	11	11	..	..	..	..	..	..	..	..	
..	..	..	..	..	..	..	..	11	11	11	..	31	11	11	11	11	11	..	..	..	..	..	..	..	..	
..	..	..	..	..	..	..	..	11	11	11	..	31	11	11	11	11	11	..	..	..	..	..	..	..	..	
..	..	..	..	..	..	..	..	11	11	11	..	31	11	11	11	11	11	..	..	..	..	..	..	..	..	
..	..	..	..	..	..	..	..	22	..	..	22	22	33	..	..	11	11	..	..	..	..	..	..	..	..	
..	..	..	..	..	..	..	..	22	..	..	22	22	33	..	..	..	11	..	..	..	..	..	..	..	..	
..	..	11	..	..	..	..	..	11	..	..	13	13	..	..	..	..	11	..	..	..	..	..	..	..	..	
..	..	11	..	..	..	..	..	11	..	..	13	13	..	..	..	..	11	..	..	..	..	..	..	..	..	

VITAL STATISTICS OF MICHIGAN, 1900.

TABLE II.—Continued.—Divorces in Michigan, by counties and sex of com-

Counties.	Sex of complainants.	Complainants in divorces granted, 1900.	Place of marriage.						Number of children.						
			Michigan.	Ohio, Indiana, Wis. consn.	Other states.	Canada.	Other foreign countries.	Unknown.	0.	1.	2.	3.	4.	5.	6.
Clare.....	Total..	9	9	.....	.....	.....	.....	.....	3	.....	5	.....	.....	.....	.....
	Males..	3	3	.....	.....	.....	.....	.....	1	.....	2	.....	.....	.....	.....
	Fem... 6	6	6	.....	.....	.....	.....	.....	2	.....	3	.....	.....	.....	.....
Clinton.....	Total..	27	24	.....	1	.....	.....	2	9	8	9	.....	1	.....	.....
	Males..	3	3	.....	.....	.....	.....	.....	1	1	.....	.....	1	.....	.....
	Fem... 24	21	.....	.....	1	.....	.....	2	8	7	9	.....	.....	.....	.....
Crawford.....	Total..	4	4	.....	.....	.....	.....	.....	1	1	2	.....	.....	.....	.....
	Males..	2	2	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....	.....
	Fem... 2	2	.....	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....
Delta.....	Total..	12	9	2	1	.....	.....	.....	4	2	2	1	1	1	.....
	Males..	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Fem... 11	9	1	1	.....	.....	.....	.....	4	1	2	1	1	1	.....
Dickinson.....	Total..	7	4	3	.....	.....	.....	.....	5	1	.....	1	.....	.....	.....
	Males..	3	2	1	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....
	Fem... 4	2	2	.....	.....	.....	.....	.....	2	1	.....	1	.....	.....	.....
Eaton.....	Total..	52	47	.....	2	2	.....	1	28	11	6	4	.....	.....	1
	Males..	13	13	.....	.....	.....	.....	.....	8	2	2	1	.....	.....	.....
	Fem... 39	34	.....	.....	2	2	.....	1	20	9	4	3	.....	.....	1
Emmet.....	Total..	26	21	1	3	1	.....	.....	8	11	2	2	1	1	1
	Males..	8	6	.....	1	1	.....	.....	3	3	1	.....	1	.....	.....
	Fem... 18	15	1	2	.....	.....	.....	.....	5	8	1	2	1	.....	1
Genesee.....	Total..	54	48	3	3	.....	.....	.....	26	16	5	4	1	1	.....
	Males..	15	14	1	.....	.....	.....	.....	9	4	1	.....	.....	.....	.....
	Fem... 39	34	2	3	.....	.....	.....	.....	17	12	4	4	.....	1	.....
Gladwin.....	Total..	1	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....
	Males..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Fem... 1	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....
Gogebic.....	Total..	2	1	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....
	Males..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Fem... 2	1	.....	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....
Grand Traverse.....	Total..	30	27	.....	2	1	.....	.....	16	3	6	3	1	.....	.....
	Males..	12	11	.....	1	.....	.....	.....	7	2	3	2	.....	.....	.....
	Fem... 18	16	.....	1	1	.....	.....	.....	9	3	3	1	1	.....	.....
Gratiot.....	Total..	35	34	.....	1	.....	.....	.....	11	11	2	4	3	2	.....
	Males..	8	7	.....	1	.....	.....	.....	4	3	.....	.....	.....	.....	.....
	Fem... 27	27	.....	.....	.....	.....	.....	.....	7	8	2	4	3	2	.....
Hillsdale.....	Total..	35	33	1	1	.....	.....	.....	16	11	5	.....	2	1	.....
	Males..	18	16	1	1	.....	.....	.....	12	4	2	.....	.....	.....	.....
	Fem... 17	17	.....	.....	.....	.....	.....	.....	4	7	3	.....	2	1	.....
Houghton.....	Total..	11	8	.....	1	.....	2	.....	4	3	1	1	1	.....	.....
	Males..	3	2	.....	.....	.....	1	.....	2	1	.....	.....	.....	.....	.....
	Fem... 8	6	.....	1	.....	.....	1	.....	2	2	1	1	1	.....	.....
Huron.....	Total..	7	5	1	.....	.....	1	.....	3	3	.....	.....	.....	1	.....
	Males..	4	2	1	.....	.....	1	.....	1	2	.....	.....	.....	1	.....
	Fem... 3	3	.....	.....	.....	.....	.....	.....	2	1	.....	.....	.....	.....	.....
Ingham.....	Total..	31	25	2	3	.....	.....	1	14	6	4	4	.....	3	.....
	Males..	7	4	1	2	.....	.....	.....	4	1	.....	2	.....	.....	.....
	Fem... 24	21	1	1	.....	.....	.....	1	10	5	4	2	.....	3	.....
Ionia.....	Total..	44	41	.....	2	1	.....	.....	19	14	4	1	3	1	.....
	Males..	14	12	.....	1	1	.....	.....	6	4	2	.....	.....	.....	.....
	Fem... 30	29	.....	1	.....	.....	.....	.....	13	10	2	1	3	1	.....
Iosco.....	Total..	6	5	1	.....	.....	.....	.....	3	.....	2	1	.....	.....	.....
	Males..	2	2	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....
	Fem... 4	3	1	.....	.....	.....	.....	.....	1	.....	2	1	.....	.....	.....

DIVORCES.

plaintant, number of children in family and duration of marriage before divorce.

Children in family.							Duration of marriage before divorce.																			
7.	8.	9.	10.	11.	16.	Unknown.	Under 1 year.	1.	2.	3.	4.	Under 5 years.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	Unknown.		
						1	1					1	1	2	3	1	1									
						1	1					1			3	1	1									
							1	1	4	3	2	11	9	4	1	1		1								
							1	1	1	2	2	9	9	4	1	1		1								
														1	3											
													1	1												
	1						1		1	2		4	3	2	1	1	1									
	1						1		2			3	3	2	1	1	1									
										1		3		1	3											
							2	1				2			1	1										
							1					1		1	2											
						2	2	8	4	5	5	24	11	6	2	6	2	1								
						2	2	5	3	4	4	18	7	5	1	6	2									
							1	2	3	2	3	11	5	5	3	1	1									
								2	3	2	2	2	9	3	2	3	1									
1							2	2	2	10	1	17	16	6	6	4	2	1		2						
1							1	1	1	3	1	5	5	2	1	1				1						
							1	2	1	7	1	12	11	4	5	3	2	1		1						
										1		1														
										1		1														
		1											1		1											
		1											1		1											
			1												1											
				1				4	3		1	8	9	6	2	2	1	1								
								1	1		1	1	4	3	2	2	1									
								4	2		1	7	5	3		2		1								
1	1						2		1	3	5	11	8	5	2	3	3	1		2						
1							2		1	3	4	10	4	5	2	3	2			1						
								2	4	1	3	12	13	4	5	1										
							1	1	4	1	2	9	6	1	1	1										
							1	1			1	3	7	3	4											
						1				1		1	5	2	3											
						1				1		1	3	2	2											
											1	1	1		2		1	1								
											1	1	1	1	1		1	1								
							1		2	2	3	8	7	5	1	3	4	1	2							
									2		3	3	1	3	1	3	4	1	1							
											3	5	6	3	1	3	4	1	1							
1							1	2	2	2	6	13	7	8	8	5	1	2								
	1						1	1	2		5	5	8	6	6	4	1	2								
												4	2	1	1											
												2	2	1	1											

TABLE II.—Continued.—Divorces in Michigan, by counties and sex of com-

Counties.	Sex of complainants.	Complainants in divorces granted, 1900.	Place of marriage.						Number of children.							
			Michigan.	Ohio, Indiana, Wisconsin.	Other states.	Canada.	Other foreign countries.	Unknown.	0.	1.	2.	3.	4.	5.	6.	
Iron.....	Total..	6	4	.....	1	.....	1	.....	.....	2	1	2	1	.....	.....	.....
	Males..	5	4	.....	.....	.....	1	.....	.....	1	1	2	1	.....	.....	.....
	Fem... 1	.....	.....	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
Isabella.....	Total..	26	24	1	1	.....	.....	.....	14	6	4	1	.....	.....	1	.....
	Males..	7	5	1	1	.....	.....	.....	4	1	2	.....	.....	.....	.....	.....
	Fem... 19	19	.....	.....	.....	.....	.....	.....	10	5	2	1	.....	.....	1	.....
Jackson.....	Total..	76	66	2	7	.....	1	.....	35	19	10	8	4	.....	.....	.....
	Males..	19	16	.....	2	.....	1	.....	10	2	3	2	2	.....	.....	.....
	Fem... 57	50	2	5	.....	.....	.....	.....	25	17	7	6	2	.....	.....	.....
Kalamazoo.....	Total..	68	60	2	3	1	.....	2	35	19	7	4	1	1	.....	.....
	Males..	9	8	1	.....	.....	.....	4	2	2	.....	.....	.....	.....	.....	.....
	Fem... 59	52	1	3	1	.....	2	31	17	5	4	1	.....	.....	.....	.....
Kalkaska.....	Total..	2	2	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....
	Males..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Fem... 2	2	.....	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....
Kent.....	Total..	211	160	8	25	3	5	10	103	47	33	13	8	1	.....	.....
	Males..	62	43	3	12	.....	2	2	36	9	10	4	2	.....	.....	.....
	Fem... 149	117	5	13	3	3	8	67	38	23	9	6	1	.....	.....	.....
Keweenaw.....	Total..	1	1	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
	Males..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Fem... 1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
Lake.....	Total..	4	4	.....	.....	.....	.....	.....	1	2	1	.....	.....	.....	.....	.....
	Males..	1	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
	Fem... 3	3	.....	.....	.....	.....	.....	.....	.....	2	1	.....	.....	.....	.....	.....
Lapeer.....	Total..	35	30	.....	2	3	.....	.....	19	7	5	3	.....	1	.....	.....
	Males..	6	4	.....	.....	2	.....	.....	3	1	1	1	.....	.....	.....	.....
	Fem... 29	26	.....	2	1	.....	.....	.....	16	6	4	2	.....	1	.....	.....
Leelanau.....	Total..	7	6	.....	1	.....	.....	.....	3	.....	2	2	.....	.....	.....	.....
	Males..	4	4	.....	.....	.....	.....	.....	.....	.....	.....	2	2	.....	.....	.....
	Fem... 3	2	.....	1	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....
Lenawee.....	Total..	57	48	6	2	.....	1	26	15	8	4	1	2	.....	.....	.....
	Males..	16	10	4	1	.....	1	11	4	1	.....	.....	.....	.....	.....	.....
	Fem... 41	38	2	1	.....	.....	.....	15	11	7	4	1	2	.....	.....	.....
Livingston.....	Total..	16	16	.....	.....	.....	.....	.....	1	5	5	.....	.....	1	.....	.....
	Males..	3	3	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	.....
	Fem... 13	13	.....	.....	.....	.....	.....	.....	1	4	4	.....	.....	1	.....	.....
Luce.....	Total..	2	1	.....	.....	.....	.....	1	.....	1	1	.....	.....	.....	.....	.....
	Males..	1	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....
	Fem... 1	.....	.....	.....	.....	.....	.....	1	.....	.....	1	.....	.....	.....	.....	.....
Mackinac.....	Total..	4	4	.....	.....	.....	.....	.....	1	2	1	.....	.....	.....	.....	.....
	Males..	1	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....
	Fem... 3	3	.....	.....	.....	.....	.....	.....	1	1	1	.....	.....	.....	.....	.....
Macomb.....	Total..	23	20	.....	.....	3	.....	.....	4	11	8	.....	.....	.....	.....	.....
	Males..	4	3	.....	.....	1	.....	.....	1	2	1	.....	.....	.....	.....	.....
	Fem... 19	17	.....	.....	2	.....	.....	.....	3	9	7	.....	.....	.....	.....	.....
Manistee.....	Total..	5	5	.....	.....	.....	.....	.....	3	2	.....	.....	.....	.....	.....	.....
	Males..	3	3	.....	.....	.....	.....	.....	2	1	.....	.....	.....	.....	.....	.....
	Fem... 2	2	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	.....	.....
Marquette.....	Total..	7	7						3	2	1				1	
	Males..								2		1					
	Fem... 3								1	2						
Mason.....	Total..								2		2	1	1	1		
	Males..								1							
	Fem... 1								1		2	1	1	1		

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dren in family.

Under 5 years.

[illegible]

TABLE 11.—Continued.—Divorces in Michigan, by counties and sex of com-

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dren in family.

[illegible]

VITAL STATISTICS OF MICHIGAN, 1900.

TABLE II.—Concluded.—Divorces in Michigan, by counties and sex of com.

Counties.	Sex of complainants.	Complainants in divorces granted, 1900.	Place of marriage.						Number of children.					
			Michigan.	Ohio, Indiana, W. Va. consol.	Other states.	Canada.	Other foreign countries.	Unknown.	0.	1.	2.	3.	4.	5.
Roscommon.....	Total..	1	1						1					
	Males..													
	Fem... 1	1							1					
Saginaw.....	Total..	111	100	2	5	2	2		55	27	15	9	1	1
	Males..	28	26		12				16	2	7	3		
	Fem... 83	74	2		3	2	2		39	25	8	6	1	1
St. Clair.....	Total..	36	22	1	5	8			17	9	7		1	1
	Males..	5	2		12	1			3	2				
	Fem... 31	20	1		7				14	7	7		1	1
St. Joseph.....	Total..	12	11	1					8	1	1	1	1	
	Males..	4	3	1					3				1	
	Fem... 8	8							5	1	1	1		
Sanilac.....	Total..	15	12		1	2			7	1	6	1		
	Males..	6	4		1	1			3		2	1		
	Fem... 9	8				1			4	1	4			
Schoolcraft.....	Total..	12	9	1		2			5	2	3	1		1
	Males..	3	2			1			2		1			
	Fem... 9	7	1			1			3	2	2	1		1
Shiawassee.....	Total..	70	61		5	4			36	19	6	3	2	2
	Males..	20	17		2	1			10	3	3	2	1	
	Fem... 50	44			3	3			26	16	3	1	1	2
Tuscola.....	Total..	33	25	1	1	6			10	11	5	3	2	
	Males..	9	8	1					5	1	2			
	Fem... 24	17			1	6			5	10	3	3	2	
Van Buren.....	Total..	46	42		4				24	9	9	1	1	2
	Males..	8	5		3				5	1	1	1		
	Fem... 38	37			1				19	8	8		1	2
Washtenaw.....	Total..	52	40	1	5	4	1	1	29	8	9	3	3	
	Males..	15	11	1	1	1		1	7	1	4	1	2	
	Fem... 37	29			4	3	1		22	7	5	2	1	
Wayne.....	Total..	382	231	16	37	90	6	2	185	93	55	18	19	4
	Males..	111	53	5	20	27	4	2	50	27	18	8	5	1
	Fem... 271	178	11	17	63	2			135	66	37	10	14	3
Wexford.....	Total..	20	19			1			14		1	2		1
	Males..	3	3						3					
	Fem... 17	16				1			11		1	2		1

TABLE III.—Causes of divorce in Michigan, by sex of complainant, during the year 1900, before

Causes alleged in petitions for divorces granted in 1900.	Sex of complain- ant.	Complainants in divorces grant- ed, 1900.	Place of marriage.							Number of chil-						
			Michigan.	Ohio, Indi- ana, Wis- consin.	Other states.	Canada.	Other for- eign coun- tries.	Unknown.	0.	1.	2.	3.	4.	5.	6.	
ALL CAUSES.....	Total..	2,418	1,934	92	167	160	31	34	1,091	620	358	148	81	44	19	
	Males..	678	502	35	69	49	13	10	342	134	104	49	26	9	1	
	Fem..	1,740	1,432	57	98	111	18	24	749	486	254	100	55	35	18	
Adultery.....	Total..	60	48	1	4	4	1	2	35	10	7	2	5			
	Males..	42	32	1	3	4	1	1	27	6	4	2	3			
	Fem..	18	16		1			1	8	4	3		2			
Adultery and cruelty.....	Total..	19	14		2	3			7	9	2		1			
	Males..	12	8		2	2			6	4	1		1			
	Fem..	7	6		1	1			1	5	1					
Adultery, cruelty and deser- tion.....	Total..	2	2						1				1			
	Males..	2	2						1				1			
	Fem..															
Adultery, cruelty, desertion and drunkenness.....	Total..	1	1						1							
	Males..	1	1						1							
	Fem..															
Adultery, cruelty and drunk- enness.....	Total..	1	1						1							
	Males..	1	1						1							
	Fem..															
Adultery and desertion.....	Total..	6	1	1	2	2			3	2	1					
	Males..	4		1	1	2			3		1					
	Fem..	2	1		1					2						
Adultery, desertion and non- support.....	Total..	1	1						1							
	Males..	1	1						1							
	Fem..															
Adultery and drunkenness...	Total..	1	1								1					
	Males..	1	1								1					
	Fem..															
Adultery and non-support...	Total..	2	2						1		1					
	Males..															
	Fem..	2	2						1		1					
Bigamy.....	Total..	1			1				1							
	Males..	1			1				1							
	Fem..															
Coerced marriage.....	Total..	1	1						1							
	Males..	1	1						1							
	Fem..															
Cruelty.....	Total..	828	681	25	55	45	9	13	353	206	129	58	29	18	10	
	Males..	249	194	11	21	18	1	4	121	41	45	22	10	5	1	
	Fem..	579	487	14	34	27	8	9	232	165	84	36	19	13	9	
Cruelty, deception and fraud	Total..	1	1							1						
	Males..	1	1							1						
	Fem..															
Cruelty and desertion.....	Total..	58	40	2	4	10	2		28	13	9	3	3	1	1	
	Males..	21	15	1	2	1	2		8	5	2	3	3			
	Fem..	37	25	1	2	9			20	8	7			1	1	
Cruelty, desertion and drunk- enness.....	Total..	2	1	1					1		1		1			
	Males..															
	Fem..	2	1	1					1		1		1			
Cruelty, desertion, drunken- ness and non-support.....	Total..	2	2						1		1					
	Males..															
	Fem..	2	2						1		1					
Cruelty, desertion and non- support.....	Total..	10	9					1	5	1	2	1	1			
	Males..															
	Fem..	10	9					1	5	1	2	1	1			

TABLE III.—Concluded.—Causes of divorce in Michigan, during the year 1900.

Causes alleged in petitions for divorces granted in 1900.	Sex of complain- ant.	Complainants in divorces grant- ed, 1900.	Place of marriage.							Number of chil-						
			Michigan.	Ohio, Indi- ana, Wis- consin.	Other states.	Canada.	Other for- eign coun- tries.	Unknown.	0.	1.	2.	3.	4.	5.	6.	
Cruelty and drunkenness	Total ..	33	30		1	1	1		10	9	7	2	3	1	1	
	Males..															
	Fem... 33	30			1	1	1		10	9	7	2	3	1	1	
Cruelty, drunkenness and non-support	Total ..	10	10						6	1	1	1	1			
	Males..															
	Fem... 10	10							6	1	1	1	1			
Cruelty and imprisonment...	Total ..	3	3						1	1					1	
	Males..															
	Fem... 3	3							1	1					1	
Cruelty and non-support	Total ..	178	158	3	5	7	3	2	78	49	25	9	4	6	1	
	Males..	2	2													
	Fem... 176	156	3	5	7	3	2		78	48	25	9	4	5	1	
Desertion	Total ..	655	509	35	57	42	10	11	286	180	95	46	16	12	4	
	Males..	324	235	21	36	19	8	5	161	72	49	21	9	3		
	Fem... 331	265	14	21	23	2	6		125	108	46	25	7	9	4	
Desertion and drunkenness..	Total ..	2	2						1							
	Males..															
	Fem... 2	2							1							
Desertion and non-support...	Total ..	87	69	7	6	12		2	51	15	12	4	3	1	1	
	Males..															
	Fem... 87	69	7	6	12		2		51	15	12	4	3	1	1	
Drunkenness	Total ..	56	49	1	6	6	3		30	14	9	1		1		
	Males..	10	3		3	3	1		6	3	1					
	Fem... 46	37	1	3	3	2			24	11	8	1		1		
Drunkenness and non-sup- port	Total ..	16	12	2	1	1			4	5	4	2		1		
	Males..															
	Fem... 16	12	2	1	1				4	5	4	2		1		
Fraud	Total ..	2	2						2							
	Males..	1	1						1							
	Fem... 1	1							1							
Illegal age	Total ..	3	1		1	1			3							
	Males..	1	1						1							
	Fem... 2				1	1			2							
Imprisonment	Total ..	11	10			1			6	3	2					
	Males..															
	Fem... 11	10			1				6	3	2					
Insanity	Total ..	2	2						1	1						
	Males..															
	Fem... 2	2							1	1						
Keeping a house of ill-fame..	Total ..	1	1						1							
	Males..	1	1						1							
	Fem...															
Neglect	Total ..	2	2						2							
	Males..															
	Fem... 2	2							2							
Non-support	Total ..	353	288	14	21	25	2	3	164	97	50	17	15	2	1	
	Males..	2	1		1				1	1						
	Fem... 351	287	14	20	25	2	3		163	96	50	17	15	2	1	
Null marriage	Total ..	5	5						5							
	Males..	2	2						2							
	Fem... 3	3							3							
Unknown	Total ..	3	2		1				1	2						
	Males..	1	1						1							
	Fem... 2	1		1						2						

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dren in family.

Unknown.

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TABLES
RELATING TO
BIRTHS
IN
MICHIGAN
AS ENUMERATED BY
SUPERVISORS AND ASSESSORS
FOR THE
YEAR 1900.

PRIMARY TABLES RELATING TO BIRTHS IN MICHIGAN ACCORDING TO THE ENUMERATION BY SUPER- VISORS AND ASSESSORS FOR THE YEAR 1900.

TABLE I.—Births in Michigan, by months, counties and sex, as enumerated by supervisors and assessors for the year 1900. (Stillbirths included.)

TABLE II.—Births in Michigan by nativity of parents, counties and sex, as enumerated by supervisors and assessors for the year 1900. (Stillbirths included.)

TABLE III.—Stillbirths, twins and illegitimate births in Michigan, by counties, as enumerated by supervisors and assessors for the year 1900. (Stillbirths included.)

TABLE IV.—Stillbirths, twins and illegitimate births in Michigan, by months and sex, as enumerated by supervisors and assessors for the year 1900. (Stillbirths included.)

TABLE V.—Stillbirths, twins and illegitimate births in Michigan, by nativity of parents, as enumerated by supervisors and assessors for the year 1900. (Stillbirths included.)

NOTE.—*Secondary tables*, containing birth rates and comparisons with previous years, may be found on preceding pages of this Report, together with the descriptive text. It may be noted that no comparisons with other States or countries are given for the reason that the returns of births, obtained by means of enumeration after the close of the year by supervisors and assessors, are grossly inaccurate. Perhaps one-third of all the births that actually occur in the State escape enumeration. The returns are valuable for certain internal comparisons, as pointed out in the text on this subject, but they should be used with great caution for all purposes, and especially for the comparative study of birth rates. The tables relating to births are placed last because of their unreliable character and also because the tardiness of the returns under the old law (last amended in 1869) causes them to be received at the Department of State long after the deaths, marriages and divorces have been compiled.

BIRTHS.

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TABLE I.—Births in Michigan, by months, counties and sex, as enumerated by supervisors and assessors for the year 1900. (Stillbirths included.)

State and counties.	Sex.	Year 1900.	Months, 1900.													Unk.
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.		
STATE..	Total..	43,699	3,069	3,105	3,821	3,930	3,755	3,501	3,777	3,983	3,880	3,658	3,415	3,762	43	
	Males..	22,535	1,552	1,601	1,979	2,062	1,947	1,804	1,973	2,041	2,000	1,882	1,729	1,950	15	
	Fem..	21,093	1,513	1,500	1,837	1,863	1,803	1,685	1,801	1,936	1,877	1,774	1,681	1,804	19	
	Unk..	71	4	4	5	5	5	12	3	6	3	2	5	8	9	
Alcona....	Total..	110	8	6	12	9	5	9	6	16	9	8	10	12	..	
	Males..	56	5	4	6	4	3	6	4	7	3	5	3	6	..	
	Fem..	54	3	2	6	5	2	3	2	9	6	3	7	6	..	
Alger.....	Total..	117	12	11	5	3	8	11	12	13	12	10	8	12	..	
	Males..	60	6	5	4	1	3	9	7	6	5	5	4	5	..	
	Fem..	56	6	6	1	2	5	1	5	7	7	5	4	7	..	
	Unk..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	
Allegan....	Total..	634	61	56	66	53	55	50	41	68	47	39	45	53	..	
	Males..	329	31	30	31	28	31	26	21	35	28	23	21	24	..	
	Fem..	303	30	25	35	25	23	24	20	33	19	16	24	29	..	
	Unk..	2	..	1	..	..	1	..	..	..	..	..	..	..	..	
Alpena....	Total..	471	56	52	58	46	37	32	27	33	28	26	34	42	..	
	Males..	239	26	28	33	22	20	14	15	19	13	10	16	23	..	
	Fem..	232	30	24	25	24	17	18	12	14	15	16	18	19	..	
Antrim....	Total..	198	12	14	20	22	14	19	15	17	17	26	9	13	..	
	Males..	100	8	7	10	10	7	13	6	7	10	12	2	8	..	
	Fem..	98	4	7	10	12	7	6	9	10	7	14	7	5	..	
Arenac....	Total..	199	8	11	22	28	21	20	15	18	13	19	10	13	1	
	Males..	103	3	4	12	13	12	13	10	9	6	11	4	6	..	
	Fem..	96	5	7	10	15	9	7	5	9	7	8	6	7	1	
Baraga....	Total..	94	5	8	7	12	8	14	6	11	4	14	1	4	..	
	Males..	42	3	4	4	5	4	9	3	2	1	4	1	2	..	
	Fem..	52	2	4	3	7	4	5	3	9	3	10	..	2	..	
Barry.....	Total..	298	10	18	17	28	35	25	29	31	29	31	16	28	1	
	Males..	148	2	8	11	19	14	12	16	13	16	15	10	12	..	
	Fem..	150	8	10	6	9	21	13	13	18	13	16	6	16	1	
Bay.....	Total..	1,240	72	82	102	122	112	100	97	128	111	93	104	117	..	
	Males..	633	36	37	50	66	63	48	45	78	56	40	52	62	..	
	Fem..	607	36	45	52	56	49	52	52	50	55	53	52	55	..	
Benzie....	Total..	169	8	3	13	22	13	20	11	18	14	17	16	13	1	
	Males..	90	6	2	7	14	7	13	6	5	7	10	7	5	1	
	Fem..	79	2	1	6	8	6	7	5	13	7	7	9	8	..	
Berrien....	Total..	585	35	40	51	47	48	43	48	51	73	51	47	50	1	
	Males..	302	20	23	29	28	22	20	28	20	34	24	24	30	..	
	Fem..	282	15	17	21	19	26	23	20	31	39	27	23	20	1	
	Unk..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	
Branch....	Total..	358	21	25	40	33	32	27	35	35	31	28	22	29	..	
	Males..	199	10	13	17	21	18	16	17	22	18	19	13	15	..	
	Fem..	159	11	12	23	12	14	11	18	13	13	9	9	14	..	
Calhoun....	Total..	610	37	55	49	49	52	52	43	56	50	56	63	45	3	
	Males..	315	21	28	25	28	34	31	14	27	31	25	24	26	1	
	Fem..	295	16	27	24	21	18	21	29	29	19	31	39	19	2	
Cass.....	Total..	216	17	14	20	15	20	23	19	14	18	22	18	1	..	
	Males..	112	7	6	10	9	10	10	12	9	7	16	10	6	..	
	Fem..	104	10	8	10	6	5	10	11	10	7	2	12	12	1	
Charlevoix	Total..	221	16	4	24	22	18	30	18	28	14	17	9	20	1	
	Males..	103	9	2	10	9	9	12	10	13	6	8	4	11	..	
	Fem..	117	7	2	14	13	9	18	8	15	8	9	5	9	..	
	Unk..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	
Cheboygan	Total..	288	10	14	25	33	30	25	27	26	24	25	21	28	..	
	Males..	158	6	6	17	20	14	15	17	13	14	11	10	15	..	
	Fem..	127	4	8	8	13	16	10	10	12	9	14	10	13	..	
	Unk..	3	..	..	..	..	..	..	..	1	1	..	1	..	..	

TABLE I.—Continued.—Births in Michigan, by months, counties and sex, 1900.

Counties.	Sex.	Year 1900.	Months, 1900.												Total.
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
Chippewa...	Total.	458	25	32	42	37	42	31	40	37	47	43	42	40	..
	Males.	227	8	18	20	15	27	16	30	18	28	19	22	16	..
	Fem..	231	17	14	22	22	15	15	20	19	19	24	20	24	..
Clare.....	Total.	156	15	9	11	16	21	9	18	7	11	19	6	13	1
	Males.	72	4	5	4	10	8	4	12	3	5	8	4	5	..
	Fem..	81	10	4	7	6	13	5	6	3	6	11	2	7	1
Clinton.....	Total.	364	28	17	33	36	32	27	28	35	38	24	32	33	1
	Males.	188	11	7	19	18	22	13	15	18	15	14	18	17	1
	Fem..	175	17	10	14	18	10	14	13	17	22	10	14	16	..
Crawford...	Total.	45	2	3	2	4	6	5	5	5	3	2	5	3	..
	Males.	21	1	2	1	3	2	1	2	3	3	1	1	1	..
	Fem..	24	1	1	1	1	4	4	3	2	..	1	4	2	..
Delta.....	Total.	588	40	43	62	72	57	45	48	43	39	42	43	53	1
	Males.	322	18	25	42	42	37	25	23	20	21	26	20	23	..
	Fem..	265	22	18	20	30	20	20	25	23	18	16	22	30	1
Dickinson...	Total.	575	47	38	52	53	46	44	52	48	56	40	37	61	1
	Males.	287	20	19	30	26	21	23	27	26	35	22	17	31	..
	Fem..	288	27	19	22	27	25	21	25	22	31	18	20	30	1
Eaton.....	Total.	363	28	26	25	28	34	32	32	31	26	39	26	35	..
	Males.	192	14	14	13	17	20	14	19	13	12	20	14	22	..
	Fem..	170	14	12	13	11	14	17	13	18	14	19	12	13	..
Emmet.....	Total.	296	17	20	18	19	20	34	27	30	34	35	26	25	1
	Males.	152	12	10	12	10	7	19	17	13	14	13	11	14	..
	Fem..	144	5	10	6	9	13	15	10	17	20	12	15	11	1
Genesee....	Total.	495	34	30	47	41	38	24	44	63	53	48	31	41	1
	Males.	252	16	19	24	17	18	13	23	32	32	21	19	18	..
	Fem..	240	18	11	23	23	20	11	21	31	21	27	11	23	..
Gladwin....	Total.	115	4	5	9	9	11	12	11	17	11	12	6	8	..
	Males.	58	2	2	4	4	7	6	5	9	4	8	4	3	..
	Fem..	57	2	3	5	5	4	6	6	8	7	4	2	5	..
Gogebic....	Total.	564	35	31	49	37	54	57	54	38	49	47	49	64	..
	Males.	295	22	15	26	24	24	28	31	16	26	25	26	32	..
	Fem..	269	13	16	23	13	30	29	23	22	23	22	23	32	..
Grand Traverse.	Total.	288	21	23	25	41	21	28	19	22	29	20	15	24	..
	Males.	160	13	14	15	22	12	17	14	11	12	9	12	9	..
	Fem..	128	8	9	10	19	9	11	5	11	17	11	3	15	..
Gratiot....	Total.	420	20	16	31	38	33	34	27	57	46	41	43	34	..
	Males.	207	8	8	16	18	16	20	16	28	19	18	23	17	..
	Fem..	212	12	8	15	20	17	14	11	29	27	22	20	17	..
Hillsdale...	Total.	286	14	12	24	28	23	20	25	29	31	34	28	28	..
	Males.	145	5	5	10	16	13	9	12	17	17	13	16	12	..
	Fem..	151	9	7	14	12	10	11	13	12	14	21	12	16	..
Houghton..	Total.	2,534	218	219	228	210	200	195	200	193	209	196	202	284	..
	Males.	1,339	111	125	110	113	99	103	101	104	112	101	109	151	..
	Fem..	1,195	107	94	118	97	101	92	99	89	97	95	93	113	..
Huron.....	Total.	814	45	47	79	81	57	78	81	70	86	71	56	62	..
	Males.	408	20	23	36	39	35	36	39	41	37	37	30	35	..
	Fem..	401	23	24	43	41	20	40	42	29	49	34	29	27	..
Ingham....	Total.	422	26	31	43	29	42	38	41	24	44	36	34	35	1
	Males.	212	14	17	24	14	24	20	18	10	21	16	16	17	1
	Fem..	210	12	14	19	15	18	18	23	14	23	20	18	16	..

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TABLE I.—Continued.—Births in Michigan, by months, counties and sex, 1900.

Counties.	Sex.	Year 1900.	Months, 1900.												Unk.
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
Ionia.....	Total..	435	29	26	32	39	30	51	47	40	35	40	41	25	..
	Males..	222	14	13	14	18	17	24	22	17	22	24	21	16	..
	Fem..	211	15	13	17	21	13	26	25	23	13	16	20	9	..
	Unk..	2	..	..	1	..	..	1	..	..	..	..	..	..	..
Iosco.....	Total..	192	7	15	12	18	16	20	12	20	25	12	13	20	2
	Males..	94	6	5	9	13	7	7	3	11	11	7	8	7	..
	Fem..	96	1	10	3	5	9	13	9	9	14	5	5	13	..
	Unk..	2	..	..	..	..	..	..	..	..	..	..	..	..	2
Iron.....	Total..	212	16	13	13	18	18	18	16	21	16	17	23	23	..
	Males..	113	8	7	10	10	11	7	9	11	9	11	14	6	..
	Fem..	98	8	6	3	8	7	11	7	10	7	6	8	17	..
	Unk..	1	..	..	..	..	..	..	..	..	..	..	1	..	..
Isabella....	Total..	421	26	20	51	42	37	44	39	38	35	32	36	21	..
	Males..	202	16	10	17	27	16	20	21	19	16	11	18	11	..
	Fem..	219	10	10	34	15	21	24	18	19	19	21	18	10	..
	Unk..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Jackson....	Total..	739	60	56	73	62	48	49	57	81	70	66	66	50	1
	Males..	368	28	23	41	32	26	21	27	44	32	32	32	29	1
	Fem..	371	32	33	32	36	22	28	30	37	38	34	34	21	..
	Unk..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kalamazoo..	Total..	778	64	46	70	63	70	54	81	68	54	80	62	65	1
	Males..	410	24	24	37	30	46	34	49	37	25	44	30	30	..
	Fem..	368	40	22	33	33	24	20	32	31	29	36	32	35	1
	Unk..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kalkaska...	Total..	83	3	4	11	6	6	6	7	12	10	5	9	4	..
	Males..	38	3	3	5	1	2	2	1	6	6	4	4	1	..
	Fem..	45	..	1	6	5	4	4	6	6	4	1	5	3	..
	Unk..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kent.....	Total..	2,416	152	191	222	203	201	202	217	208	212	212	188	206	2
	Males..	1,216	77	96	112	104	102	109	102	100	113	108	94	98	1
	Fem..	1,194	75	95	110	98	99	89	115	108	99	104	94	108	..
	Unk..	6	..	..	..	1	..	4	..	..	..	..	..	..	1
Keweenaw..	Total..	103	5	7	9	14	6	4	13	8	10	8	6	13	..
	Males..	53	2	4	3	8	3	3	8	3	5	4	4	6	..
	Fem..	50	3	3	6	6	3	1	5	5	5	4	2	7	..
	Unk..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lake.....	Total..	74	8	7	4	12	8	6	6	6	2	3	7	5	..
	Males..	35	1	5	..	6	5	1	2	4	2	1	7	1	..
	Fem..	38	7	2	4	5	3	5	4	2	..	2	..	4	..
	Unk..	1	..	..	..	1	..	..	..	..	..	..	..	..	..
Lapeer.....	Total..	380	28	24	42	28	33	34	39	34	30	31	30	27	..
	Males..	194	15	14	20	15	21	16	20	20	14	15	12	12	..
	Fem..	185	13	10	22	13	12	18	19	13	16	16	18	15	..
	Unk..	1	..	..	..	..	..	..	..	1	..	..	..	..	..
Leelanau...	Total..	186	12	16	17	23	16	16	14	17	17	15	11	12	..
	Males..	87	4	6	5	15	9	7	7	7	5	10	5	7	..
	Fem..	99	8	10	12	8	7	9	7	10	12	5	6	5	..
	Unk..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lenawee....	Total..	553	40	43	56	64	61	43	40	48	49	40	39	30	..
	Males..	297	20	24	35	37	27	25	17	27	22	24	23	16	..
	Fem..	255	20	19	21	27	34	18	23	21	26	16	16	14	..
	Unk..	1	..	..	..	..	..	..	..	..	1	..	..	..	..
Livingston..	Total..	235	10	20	20	21	18	18	19	21	30	17	21	20	..
	Males..	123	8	9	8	12	10	11	6	11	15	8	12	13	..
	Fem..	112	2	11	12	9	8	7	13	10	15	9	9	7	..
	Unk..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Luce.....	Total..	41	..	5	1	2	4	5	5	4	4	7	4	..	..
	Males..	19	..	3	1	2	1	1	3	2	1	4	1	..	..
	Fem..	22	..	2	..	..	3	4	2	2	3	3	3	..	..
	Unk..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mackinac...	Total..	99	6	4	18	9	8	8	7	12	7	9	6	5	..
	Males..	55	4	1	10	4	5	2	5	7	5	6	4	2	..
	Fem..	44	2	3	8	5	3	6	2	5	2	3	2	3	..
	Unk..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Macomb....	Total..	508	38	36	38	57	42	39	40	41	47	50	40	39	1
	Males..	234	12	16	16	27	24	19	19	20	22	23	15	21	..
	Fem..	272	26	20	22	30	18	19	21	21	25	27	24	18	1
	Unk..	2	..	..	..	..	..	1	..	..	..	..	1	..	..

TABLE I.—Continued.—Births in Michigan, by months, counties and sex, 1900.

TABLE I.—Concluded.—Births in Michigan, by months, counties and sex, 1900.

Counties.	Sex.	Year 1900.	Months, 1900.												Unk.
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
Oscoda.....	Total..	16					1	1	4	2	2	2	3	1	
	Males..	7						1	1	2	1	1	1		
	Fem... 9						1		3		1	1	2	1	
Otsego.....	Total..	110	4	9	8	14	10	8	11	10	10	10	6	10	
	Males..	59	3	6	4	10	5	5	4	4	6	4	4	4	
	Fem... 51		1	3	4	4	5	3	7	6	4	6	2	6	
Ottawa.....	Total..	798	43	44	63	58	75	74	84	94	96	54	52	60	1
	Males..	394	20	20	34	32	28	42	49	46	44	21	26	31	1
	Fem... 403		23	24	29	26	46	32	35	48	52	33	26	29	
Presque Isle	Total..	218	21	17	10	23	23	22	15	20	12	10	18	26	1
	Males..	98	9	9	4	10	8	9	7	8	5	9	8	12	
	Fem... 118		11	8	6	13	15	13	8	12	7	1	10	14	
Roscommon	Total..	29	1		3	1	6	3	4	6	2	1	2		
	Males..	12				1	4	1	2	2	1		1		
	Fem... 17		1		3		2	2	2	4	1	1	1		
Saginaw....	Total..	1,182	75	95	84	115	107	104	109	97	114	80	88	113	
	Males..	581	40	48	45	56	49	53	50	48	58	44	39	51	
	Fem... 600		35	48	39	59	57	51	59	49	56	36	49	62	
St. Clair....	Total..	895	72	57	85	76	64	61	63	80	89	82	77	88	1
	Males..	482	38	28	58	45	32	32	25	33	52	42	39	57	1
	Fem... 413		34	29	27	31	32	29	38	47	37	40	38	31	
St. Joseph..	Total..	259	15	22	21	25	25	23	21	18	23	22	25	19	
	Males..	122	4	9	13	12	9	9	11	9	13	9	13	11	
	Fem... 137		11	13	8	13	16	14	10	9	10	13	12	8	
Sanilac.....	Total..	645	34	49	58	59	55	59	64	58	61	50	49	46	3
	Males..	325	17	27	28	30	27	36	36	25	29	22	30	18	
	Fem... 315		17	22	29	29	28	23	28	32	32	28	19	27	1
Schoolcraft	Total..	164	10	12	12	11	16	17	17	13	15	19	14	8	
	Males..	92	6	9	6	10	8	6	10	7	8	10	8	4	
	Fem... 72		4	3	6	1	8	11	7	6	7	9	6	4	
Shiawassee..	Total..	498	28	47	43	50	43	39	44	48	37	47	39	32	1
	Males..	258	15	25	17	30	20	20	25	29	17	21	18	20	1
	Fem... 240		13	22	26	20	23	19	19	19	20	26	21	12	
Tuscola.....	Total..	611	26	42	53	71	54	59	61	63	46	57	38	41	
	Males..	328	9	26	25	35	29	35	38	34	30	29	18	20	
	Fem... 283		17	16	28	36	25	24	23	29	16	28	20	21	
Van Buren..	Total..	377	31	17	22	29	37	25	35	29	44	49	31	28	
	Males..	203	16	12	14	17	17	16	20	13	20	26	14	18	
	Fem... 174		15	5	8	12	20	9	15	16	24	23	17	10	
Washtenaw	Total..	594	44	40	47	51	49	49	63	61	57	49	47	36	1
	Males..	300	20	17	28	18	31	22	33	35	27	24	19	25	1
	Fem... 294		24	23	19	33	18	27	30	26	30	25	28	11	
Wayne.....	Total..	8,321	713	617	767	676	654	587	714	712	702	683	673	816	7
	Males..	4,328	376	315	407	340	338	291	384	363	380	357	348	425	4
	Fem... 3,983		336	301	359	335	316	296	330	348	322	325	325	388	2
Wexford...	Total..	356	26	32	30	40	37	32	30	36	22	29	23	19	
	Males..	178	13	15	17	15	17	23	12	22	11	15	8	10	
	Fem... 178		13	17	13	25	20	9	18	14	11	14	15	9	

TABLE II.—Births in Michigan by nativity of parents, counties and sex, as enumerated by supervisors and assessors for the year 1900. (Stillbirths included.)

State and counties.	Sex.	Children born, 1900.	Nativity of parents of children born in 1900.								Both unknown.	
			Both native born.	Both foreign born.	Foreign father and native mother.	Foreign mother and native father.	Mother unknown.		Father unknown.			
							Father—		Mother—			
							Native.	Foreign.	Native.	Foreign.		
STATE.....	Total... Males... Fem... Unk...	43,699 22,535 21,093 71	19,928 10,302 9,592 34	14,192 7,345 6,839 17	5,291 2,660 2,621 10	3,210 1,654 1,552 4	123 67 56 1	71 39 31 1	156 79 76 1	55 23 32 4	673 386 303 4	
Alcona.....	Total... Males... Fem...	110 56 54	21 11 10	56 27 29	25 12 13	7 5 2						1 1 1
Alger.....	Total... Males... Fem... Unk...	117 60 56 1	33 18 14 1	48 25 23 1	28 15 13	8 2 6						
Allegan.....	Total... Males... Fem... Unk...	634 329 303 2	507 262 244 1	45 22 22 1	45 23 22	33 21 12	1 1		1 1	1 1	1 1	
Alpena.....	Total... Males... Fem...	471 239 232	96 45 51	223 118 105	91 46 45	60 30 30		1 1				
Antrim.....	Total... Males... Fem...	198 100 98	110 54 56	33 16 17	36 20 16	16 8 8					1 1	
Arenac.....	Total... Males... Fem...	199 103 96	94 48 46	57 31 26	28 15 13	18 7 11			2 2			
Baraga.....	Total... Males... Fem...	94 42 52	21 9 12	37 23 14	14 3 11	3 3 3	7 3 4	4 2 2				
Barry.....	Total... Males... Fem...	298 148 150	263 135 128	4 3 1	17 5 12	10 4 6	3 1 2				1 1	
Bay.....	Total... Males... Fem...	1,240 633 607	471 238 233	458 241 217	192 96 96	114 56 58			3 2 1	1 1		
Benzie.....	Total... Males... Fem...	169 90 79	98 52 46	34 18 16	15 9 6	15 7 8	2 1 1	1 1	1 1			
Berrien.....	Total... Males... Fem... Unk...	585 302 282 1	381 195 185 1	122 67 55	39 20 19	28 13 15	4 1 3		5 1 4			
Branch.....	Total... Males... Fem...	358 199 159	318 180 138	16 8 8	15 6 9	8 4 4			1 1			
Calhoun.....	Total... Males... Fem...	610 315 295	494 255 239	47 21 26	30 14 16	32 21 11	1 1		4 2 2			
Cass.....	Total... Males... Fem...	216 112 104	199 103 96	1 1	6 2 4	3 1 2	3 2 1		2 1 1			
Charlevoix.....	Total... Males... Fem... Unk...	221 103 117 1	124 58 66 1	30 16 14	37 19 18	20 7 12	3 1 2		3 2 1			4 2 2 1

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TABLE II.—Continued.—Births by counties, parent nativity and sex, 1900.

Counties.	Sex.	Children born, 1900.	Nativity of parents of children born in 1900.								Both unknown.
			Both native born.	Both foreign born.	Foreign father and native mother.	Foreign mother and native father.	Mother unknown.		Father unknown.		
							Father—		Mother—		
							Native.	Foreign.	Native.	Foreign.	
Cheboygan.....	Total...	288	116	89	43	38	1				1
	Males...	158	64	50	22	21					1
	Fem...	127	50	39	20	17	1				
	Unk...	3	2		1						
Chippewa.....	Total...	456	60	285	58	51		1	1		2
	Males...	227	30	145	26	25		1			
	Fem...	231	30	140	32	26			1		2
	Unk...										
Clare.....	Total...	156	92	24	23	15			2		
	Males...	72	40	11	14	7					
	Fem...	81	49	13	9	8			2		
	Unk...	3	3								
Clinton.....	Total...	364	306	11	27	14	1		2		3
	Males...	188	156	6	16	8					2
	Fem...	175	149	5	11	6	1		2		1
	Unk...	1	1								
Crawford.....	Total...	45	27	11	2	2	2				1
	Males...	21	13	4		1	2				1
	Fem...	24	14	7	2	1					
	Unk...										
Delta.....	Total...	588	143	300	86	41	2	2	3		11
	Males...	322	80	160	45	25	2	2	2		6
	Fem...	265	63	140	40	16			1		5
	Unk...	1			1						
Dickinson.....	Total...	575	39	474	41	17		3	1		
	Males...	287	20	243	17	5		2			
	Fem...	288	19	231	24	12		1	1		
	Unk...										
Eaton.....	Total...	363	334	7	16	5			1		
	Males...	192	178	3	8	2			1		
	Fem...	170	155	4	8	3					
	Unk...	1	1								
Emmet.....	Total...	296	195	40	32	22	1		4		2
	Males...	152	93	22	23	12	1				1
	Fem...	144	102	18	9	10			4		1
	Unk...										
Genesee.....	Total...	495	374	29	55	33			1	1	2
	Males...	252	190	17	26	18			1		
	Fem...	240	182	12	29	15				1	1
	Unk...	3	2								1
Gladwin.....	Total...	115	55	26	21	12			1		
	Males...	58	32	10	13	3					
	Fem...	57	23	16	8	9			1		
	Unk...										
Gogebic.....	Total...	564	44	487	21	11	1				
	Males...	295	18	261	10	6					
	Fem...	269	26	226	11	5	1				
	Unk...										
G'd Traverse..	Total...	288	187	37	28	24	1		6		5
	Males...	160	107	17	17	12			3		4
	Fem...	128	80	20	11	12	1		3		1
	Unk...										
Gratiot.....	Total...	420	359	8	18	24			6		5
	Males...	207	181	4	11	7			2		2
	Fem...	212	177	4	7	17			4		3
	Unk...	1	1								
Hillsdale.....	Total...	296	272	6	10	5				1	2
	Males...	145	133	4	4	2					2
	Fem...	151	139	2	6	3				1	
	Unk...										
Houghton.....	Total...	2,534	429	1,639	329	127	1		4	2	3
	Males...	1,339	228	865	179	63			2	1	1
	Fem...	1,195	201	774	150	64	1		2	1	2
	Unk...										

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TABLE II.—Continued.—Births by counties, parent nativity and sex, 1900.

Nativity of parents of children born in 1900.											
Counties.	Sex.	Children born, 1900.	Both native born.	Both foreign born.	Foreign father and native mother.	Foreign mother and native father.	Mother unknown.		Father unknown.		Both unknown.
							Father—		Mother—		
							Native.	Foreign.	Native.	Foreign.	
Huron	Total...	814	226	314	181	84			5	3	
	Males...	408	120	165	75	44			3	1	
	Fem...	401	105	146	105	40			2	2	
	Unk...	5	1	3	1						
Ingham	Total...	422	315	51	33	20			2		
	Males...	212	155	27	16	11			2		
	Fem...	210	160	24	17	9					
	Unk...										
Ionia	Total...	435	347	26	39	22			1		
	Males...	222	180	16	15	10			1		
	Fem...	211	165	10	24	12					
	Unk...	2	2								
Iosco	Total...	192	50	77	29	25	2	3	1		
	Males...	94	22	42	15	11		1			
	Fem...	96	27	35	14	14	2	2	1		
	Unk...	2	1								
Iron	Total...	212	38	146	19	7	1		1		
	Males...	113	20	79	7	5	1		1		
	Fem...	98	18	67	11	2					
	Unk...	1			1						
Isabella	Total...	421	283	62	45	24			3		
	Males...	202	134	31	22	10			1		
	Fem...	219	149	31	23	14			2		
	Unk...										
Jackson	Total...	739	498	80	62	42		1	6		
	Males...	368	250	36	33	22	3	1	3		
	Fem...	371	248	44	29	20	6		3		
	Unk...										
Kalamazoo	Total...	778	466	184	60	55	2		6	2	3
	Males...	410	237	92	37	35	2		4	1	2
	Fem...	368	229	92	23	20			2	1	1
	Unk...										
Kalkaska	Total...	83	65	6	6	6					
	Males...	38	28	3	3	4					
	Fem...	45	37	3	3	2					
	Unk...										
Kent	Total...	2,416	995	923	293	164		1	10	5	25
	Males...	1,216	530	444	142	79		1	5	3	12
	Fem...	1,194	462	477	150	85			5	2	13
	Unk...	6	3	2	1						
Keweenaw	Total...	103	20	65	13	5					
	Males...	53	7	35	10	1					
	Fem...	50	13	30	3	4					
	Unk...										
Lake	Total...	74	40	16	13	4			1		
	Males...	35	21	6	5	2			1		
	Fem...	38	19	10	8	1					
	Unk...	1				1					
Lapeer	Total...	380	237	39	55	45	4				
	Males...	194	124	21	23	24	2				
	Fem...	185	112	18	32	21					
	Unk...	1	1								
Leelanau	Total...	186	36	86	32	18	1				
	Males...	87	42	15	12	8	1				
	Fem...	99	52	34	12	10					
	Unk...										
Lenawee	Total...	553	364	104	57	38			1		1
	Males...	297	210	57	28	18			1		
	Fem...	256	154	47	29	20					
	Unk...	1									
Livingston	Total...	22	1	1	1	1			2		2
	Males...	11	1	1	1	1			1		1
	Fem...	11									
	Unk...										

TABLE II.—Continued.—Births by counties, parent nativity and sex, 1900.

Counties.	Sex.	Children born, 1900.	Nativity of parents of children born in 1900.								
			Both native born.	Both foreign born.	Foreign father and native mother.	Foreign mother and native father.	Mother unknown.		Father unknown.		Both unknown.
							Father—		Mother—		
							Native.	Foreign.	Native.	Foreign.	
Luce	{ Total... Males... Fem...	41 19 22	4 3 1	23 10 13	8 5 3	6 1 5					
Mackinac.....	{ Total... Males... Fem...	99 55 44	45 22 23	26 21 5	17 7 10	6 3 3	1 2 1	2 1 1	2 1 1		
Macomb	{ Total... Males... Fem... Unk...	508 234 272 2	340 162 177 1	67 27 39 1	61 27 34	38 17 21	1 1			1 1	
Manistee	{ Total... Males... Fem... Unk...	606 304 302 2	156 79 77 2	322 153 167 2	76 38 38	45 28 17	2 2	2 1 1		1 3 1	4 3 1
Marquette.....	{ Total... Males... Fem... Unk...	1,293 693 597 3	205 111 94 2	802 428 372 2	202 108 94	69 37 31 1		1 1 1	4 3 1	2 2 2	8 5 3
Mason.....	{ Total... Males... Fem...	404 196 206	175 91 84	139 66 73	62 28 34	27 13 14		1 1			
Mecosta	{ Total... Males... Fem... Unk...	305 166 138 1	193 108 85 1	40 22 17 1	43 18 25	22 13 9			5 4 1 1	2 1 1	
Menominee....	{ Total... Males... Fem...	418 210 208	115 60 55	206 97 109	54 28 26	31 17 14	1 1	2 2	2 1 1	4 2 2	3 2 1
Midland.....	{ Total... Males... Fem...	272 140 132	156 84 72	39 21 18	45 23 22	28 9 19	1 1		3 2 1		
Missaukee....	{ Total... Males... Fem...	232 127 105	110 57 53	68 36 32	40 23 17	12 9 3			1 1	1 1	
Monroe	{ Total... Males... Fem... Unk...	538 296 239 1	455 253 201 1	21 12 9	39 20 19	21 12 9					2 1 1
Montcalm.....	{ Total... Males... Fem... Unk...	409 207 197 5	271 148 120 3	55 25 29 1	54 19 35	19 8 10 1	5 5		1 1	1 1	3 2
Montmorency..	{ Total... Males... Fem...	57 34 23	24 17 7	10 6 4	18 9 9	3 1 2			1 1		1 1
Muskegon.....	{ Total... Males... Fem... Unk...	632 352 279 1	242 150 92 1	248 122 126	83 40 43	49 34 15	2 1 1		6 3 2 1	2 2	
Newaygo	{ Total... Males... Fem...	176 108 68	111 65 46	34 22 12	16 10 6	11 8 3		1 1			3 2 1
Oakland.....	{ Total... Males... Fem...	439 234 205	320 171 149	48 26 22	36 19 17	33 18 15			1 1		1 1

TABLE II.—Continued.—Births by counties, parent nativity and sex, 1900.

Counties.	Sex.	Children born, 1900.	Nativity of parents of children born in 1900.								Both unknown.
			Both native born.	Both foreign born.	Foreign father and native mother.	Foreign mother and native father.	Mother unknown.		Father unknown.		
							Father—		Mother—		
							Native.	Foreign.	Native.	Foreign.	
Oceana.....	Total..	245	164	33	20	25	1	1	1	1	...
	Males..	125	92	13	8	9	1	1	1	1	...
	Fem...	120	72	20	12	16	...	...	...	...	...
Ogemaw.....	Total..	82	40	27	8	5	1	...	1	...	...
	Males..	46	21	18	4	2	1	...	...	...	...
	Fem...	36	19	9	4	3	...	...	1	...	...
Ontonagon....	Total..	129	39	38	15	4	...	...	...	...	23
	Males..	67	19	21	9	2	...	...	...	...	16
	Fem...	62	20	17	6	2	...	...	...	...	17
Osceola.....	Total..	331	188	58	52	29	...	2	...	...	2
	Males..	173	100	31	27	12	...	2	...	...	1
	Fem...	158	88	27	25	17	...	...	...	...	1
Oscoda.....	Total..	16	11	2	2	1	...	...	...	...	...
	Males..	7	5	...	1	1	...	...	...	...	...
	Fem...	9	6	2	1	...	...	...	...	...	...
Otsego.....	Total..	110	30	47	21	11	1	...	...	...	...
	Males..	59	17	27	9	5	1	...	...	...	...
	Fem...	51	13	20	12	6	...	...	...	...	...
Ottawa.....	Total..	798	379	204	119	94	...	...	1	...	1
	Males..	394	195	91	68	39	...	...	...	...	1
	Fem...	403	183	113	51	55	...	...	1	...	...
	Unk...	1	1	...	...	...	...	...	...	...	...
Presque Isle...	Total..	218	66	70	60	16	1	...	1	1	3
	Males..	98	28	30	26	10	1	...	...	1	2
	Fem...	118	37	40	33	6	...	...	1	...	1
	Unk...	2	1	...	1	...	...	...	...	...	...
Roscommon....	Total..	29	18	2	3	5	...	...	1	...	...
	Males..	12	8	1	2	1	...	...	...	...	...
	Fem...	17	10	1	1	4	...	...	1	...	...
Saginaw.....	Total..	1,182	589	264	197	121	2	1	7	1	...
	Males..	581	291	128	97	59	1	1	4	...	...
	Fem...	600	297	136	100	62	1	...	3	1	...
	Unk...	1	1	...	...	...	...	...	...	...	...
St. Clair.....	Total..	895	456	191	136	99	3	5	2	3	...
	Males..	482	232	106	77	61	1	3	1	1	...
	Fem...	413	224	85	59	38	2	2	1	2	...
St. Joseph....	Total..	259	217	5	15	14	...	1	1	...	6
	Males..	122	106	1	6	7	...	...	...	...	2
	Fem...	137	111	4	9	7	...	1	1	...	4
Sanilac.....	Total..	645	212	201	142	76	3	3	3	2	3
	Males..	325	111	105	69	38	...	...	...	1	1
	Fem...	315	101	95	70	38	3	2	3	1	2
	Unk...	5	...	1	3	...	...	1	...	...	...
Schoolcraft...	Total..	164	61	70	21	12	...	...	...	...	...
	Males..	92	37	41	8	6	...	...	...	...	...
	Fem...	72	24	29	13	6	...	...	...	...	...
Shiawassee....	Total..	498	327	24	58	34	32	9	3	...	11
	Males..	258	168	12	29	22	18	2	1	...	6
	Fem...	240	159	12	29	12	14	7	2	...	5
Tuscola.....	Total..	611	333	100	108	69	...	...	1	...	...
	Males..	328	178	54	53	42	...	...	1	...	...
	Fem...	283	155	46	55	27	...	...	...	...	...

TABLE II.—Concluded.—Births by counties, parent nativity and sex, 1900.

Counties.	Sex.	Children born, 1900.	Nativity of parents of children born in 1900.									Both unknown.
			Both native born.	Both foreign born.	Foreign father and native mother.	Foreign mother and native father.	Mother unknown.		Father unknown.			
							Father—		Mother—			
							Native.	Foreign.	Native.	Foreign.		
Van Buren....	Total...	377	339	13	11	10	.....	1	1	1	1	
	Males...	203	183	8	5	5	.....	.....	1	1	.....	
	Fem...	174	156	5	6	5	.....	1	.....	.....	1	
Washtenaw....	Total...	594	393	83	66	51	.....	.....	.....	.....	1	
	Males...	300	200	44	31	24	.....	.....	.....	.....	1	
	Fem...	294	193	39	35	27	.....	.....	.....	.....	.....	
Wayne.....	Total...	8,321	2,347	3,773	981	724	10	21	14	15	436	
	Males...	4,328	1,194	1,973	496	389	6	13	9	5	241	
	Fem...	3,983	1,149	1,797	482	335	4	8	5	10	193	
	Unk...	10	4	3	1	.....	4	.....	5	.....	2	
Wexford.....	Total...	356	211	82	38	22	1	1	.....	.....	1	
	Males...	178	99	49	18	10	.....	1	.....	.....	1	
	Fem...	178	112	33	20	12	1	.....	.....	.....	.....	

TABLE III.—Stillbirths, twins and illegitimate births in Michigan, by counties, as enumerated by supervisors and assessors for the year 1900. (Stillbirths included.)

State and counties.	Number of stillbirths in 1900.	Number of twins born in 1900.	Number of illegitimate children born in 1900.	Counties.	Number of stillbirths in 1900.	Number of twins born in 1900.	Number of illegitimate children born in 1900.
STATE.....	538	808	332	Kent.....	30	48	15
Alcona.....	2		1	Keweenaw.....	5		2
Alger.....	1	2		Lake.....	6		
Allegan.....	7	6	1	Lapeer.....	2	4	4
Alpena.....	12	14		Leelanau.....	7	2	
Antrim.....		4	1	Lenawee.....	8	6	1
Arenac.....				Livingston.....	4	6	1
Baraga.....	3		3	Luce.....	1	4	
Barry.....	5	6	1	Mackinac.....	2		1
Bay.....	11	10	5	Macomb.....	2	10	1
Benzie.....		6	2	Manistee.....	5	10	2
Berrien.....	7	2	2	Marquette.....	32	20	5
Branch.....	6	2	2	Mason.....	6	10	1
Calhoun.....	7	12	6	Mecosta.....	7	4	5
Cass.....	2	6	1	Menominee.....	4	18	1
Charlevoix.....	3	6	1	Midland.....	6	2	3
Cheboygan.....	7	8		Missaukee.....	2	12	1
Chippewa.....	2	8	4	Monroe.....	4	8	
Clare.....	4	6		Montcalm.....	5	4	3
Clinton.....	3	10	2	Montmorency.....	3		1
Crawford.....		4		Muskegon.....	12	18	2
Delta.....	2	16	2	Newaygo.....	1	2	1
Dickinson.....	5	10	2	Oakland.....		8	
Eaton.....	3	8		Oceana.....		8	
Emmet.....	6	6	4	Ogemaw.....	1	4	
Genesee.....	18	16	4	Ontonagon.....	4	2	
Gladwin.....	4	4	1	Osceola.....	1	4	
Gogebic.....	6	10		Oscoda.....			
Grand Traverse.....	4	4	1	Otsego.....	4	2	
Gratiot.....	4	16	5	Ottawa.....	9	14	2
Hillsdale.....	2	6		Presque Isle.....	5	4	3
Houghton.....	11	24	6	Roscommon.....			1
Huron.....	13	18	11	Saginaw.....	13	32	9
Ingham.....	2	2		St. Clair.....	7	16	1
Ionia.....	4	10	1	St. Joseph.....	2	8	1
Iosco.....	4			Sanilac.....	11	18	2
Iron.....	7	12	3	Schoolcraft.....	3	8	2
Isabella.....	4	10	5	Shiawassee.....	10	14	3
Jackson.....	14	8	1	Tuscola.....	9	12	3
Kalamazoo.....	12	26	4	Van Buren.....	1	2	2
Kalkaska.....		4		Washtenaw.....	6		
				Wayne.....	88	104	169
				Wexford.....	3	14	

TRIPLETS.—There were seven cases of triplets reported for 1900, as follows: Bay county, born in January, one male, two females, foreign mother, native father; Cheboygan county, born in May, one male, two females, parents both native; Huron county, born in September, two males, one female, parents both foreign; Ionia county, born in June, one male, two females, parents both native; Wayne county, three cases, one set in January, females, parents foreign; one set in November, two males, one female, parents foreign, and one set in January, two males, one female, parents foreign.

BIRTHS.

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TABLE IV.—Stillbirths, twins and illegitimate births in Michigan, by months and sex, as enumerated by supervisors and assessors for the year 1900. (Stillbirths included.)

Condition.	Sex.	Year 1900.	Months of birth, 1900.												
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.
Stillbirths.	Total...	538	38	25	39	54	48	44	48	48	43	49	47	51	4
	Males...	282	20	15	22	20	23	22	31	24	27	27	28	23	..
	Fem...	209	15	8	14	29	21	13	15	20	14	21	16	19	4
	Unk...	47	3	2	3	5	4	9	2	4	2	1	3	9	..
Twins.....	Total...	808	78	68	56	76	88	64	66	60	64	62	58	68	..
	Males...	405	34	39	31	35	44	31	36	29	25	29	28	44	..
	Fem...	399	44	29	25	41	44	31	30	31	38	33	29	24	..
	Unk...	4	.....	.....	.....	.....	.....	2	.....	.....	1	.....	1	.....	..
Illegiti- mates ...	Total...	332	19	31	40	28	33	22	25	31	27	20	24	31	1
	Males...	177	11	13	22	14	19	12	13	16	18	8	13	17	1
	Fem...	155	8	18	18	14	14	10	12	15	9	12	11	14	..
	Unk...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	..

TABLE V.—Stillbirths, twins and illegitimate births in Michigan, by nativity of parents, as enumerated by supervisors and assessors for the year 1900. (Stillbirths included.)

Nativity of parents.	Number of stillborn children, 1900.				Number of twins, 1900.				Number of illegitimate children, 1900.			
	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Unknown.
All nativities	538	282	209	47	808	405	399	4	332	177	155	.....
Both native born.....	259	133	101	25	360	196	160	4	38	16	22	.....
Both foreign born.....	170	92	66	12	264	129	135	.....	16	8	8	.....
Foreign father and native mother.	52	28	18	6	86	39	47	.....	3	2	1	.....
Foreign mother and native father.	31	16	13	2	84	37	47	.....	5	4	1	.....
Unknown mother, father native...	1	.....	1	.....	2	.....	2	.....	3	1	2	.....
Unknown mother, father foreign..	2	1	1	.....	2	.....	2	.....	.....	.....	.....	.....
Unknown father, mother native ..	6	4	2	.....	2	.....	2	.....	68	37	31	.....
Unknown father, mother foreign..	1	.....	.....	1	2	2	.....	.....	21	7	14	.....
Both unknown.....	16	8	7	1	6	2	4	.....	178	102	76	.....
One or both native	349	181	135	33	534	272	258	4	117	60	57	
One or both foreign	256	137	98	21	438	207	231		45	21	24	

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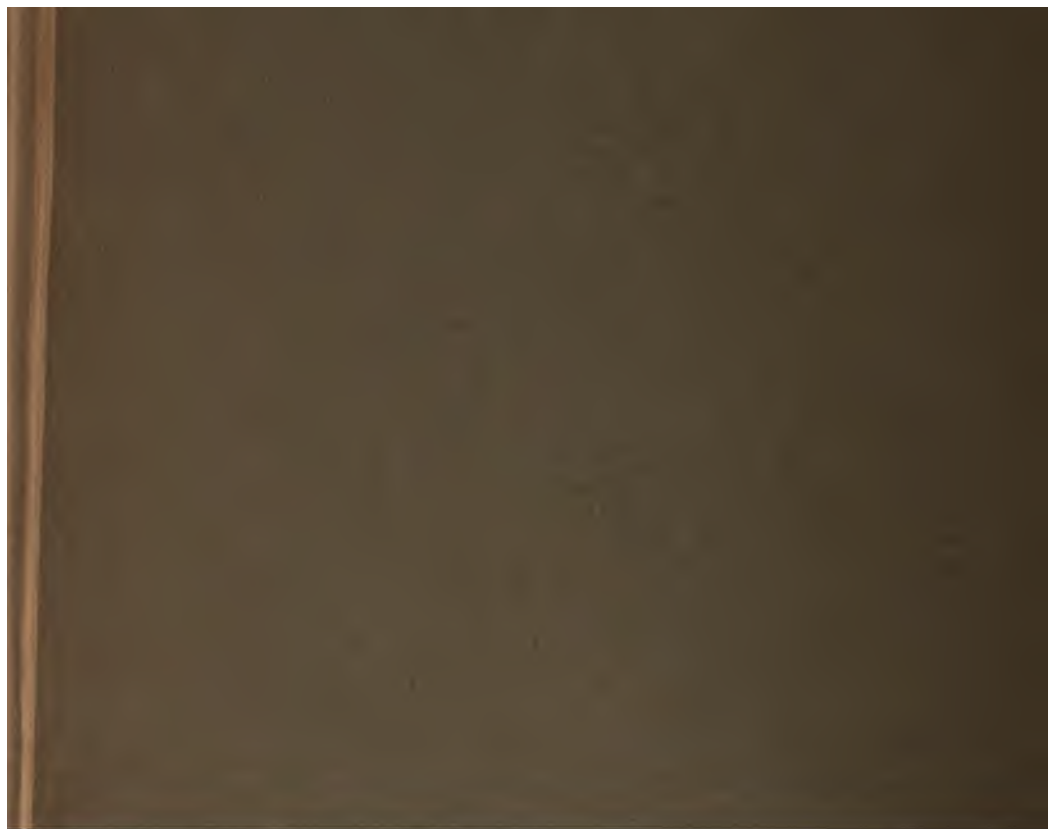
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